OVERLAPPINGS AND OMISSIONS IN OUR COURSES OF STUDY

W. J. OSBURN

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OVERLAPPINGS AND OMISSIONS IN OUR COURSES OF STUDY

Prepared Under the Direction of

W. J. OSBURN

With the Assistance of a Grant from the Commonwealth Fund

Issued by

JOHN CALLAHAN

State Superintendent

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PREFACE

The studies described in this volume were undertaken at the request of the Committee on School Administration representing the National Education Association and financed by a grant from The Commonwealth Fund to the State Department of Public Instruction of Wisconsin. As the title indicates, the purpose of the study was to ascertain whether or not undesirable overlappings or omissions exist in our courses of study as they have been administered during recent years. The data which are presented relate mostly to textbook material but they are accurate for the field which they cover.

There are a number of interesting by-products but only one could be described within the limits of this volume. It is treated in Chapter VII under the heading "The Nature of the Duplication." The evidence as set forth in that chapter is not reassuring to those who believe that present conditions are as they should be. Other by-products of these studies must be presented at a later time.

The author is under obligations to scores of persons who have contributed data and helpful criticism. He is grateful to a number of capable assistants for their suggestions and faithful work. Superintendent John Callahan and the Wisconsin State Department of Public Instruction deserve special thanks for a generous expenditure of time, money and labor that has contributed greatly to the completion of this work.

Worth J. Osburn

Columbus, Ohio
September 20, 1928

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CHAPTER I

INTRODUCTION

This study was undertaken at the request of the committee on administrative units of the Commonwealth Fund Organization and financed by that organization. The importance of the subject of the study is obvious even at first glance. Education is an expensive venture, so expensive indeed that the United States is the only country in the world that has attempted to make it free from the kindergarten through the university. We are very proud of our free school system but the fact remains that the burden of expense is great and there have been signs of restlessness among our people under the weight of their taxation burden.

It must be remembered also that much of our education is only partly free to many of our people. There are still large portions of our country for which secondary education is not free and comparatively few enjoy the advantages of free college education. This is true because large numbers of school districts are still without high schools and only a few can live in the shadow of a college or university. Under such circumstances the children must be sent away from home and maintained while they are being educated.

In addition to this there is a considerable tendency to question the amount of time which is spent in getting an education. Throughout most of the nation the children enter the elementary school at 6 years of age and finish at 14. Then they spend four years in secondary schools and are ready to enter college at 18. The undergraduate course in our colleges lasts four years so that a Bachelor's degree may be obtained at the age of 22. After this two or three years of professional or graduate work are required of a large number of pupils who wish to fit themselves for some profession. As a consequence of this most of our pupils cannot expect to attain the doctorate or finish their professional courses much before the age of 25. For them there can be little thought of making their own living or starting a home during the first quarter of a century that they live. This is expensive to society as a whole because every year that education is prolonged deprives society of one year more of constructive service from those who are being educated.

It is possible that this condition may be counterbalanced in part by an increase in quality and quantity of the constructive service of those who spend full time in school. They may be able to make up for the time which they have lost after they do get started. It is possible too that a few unusually bright pupils may save some time through a more rapid promotion while they are in school. Rapid promotion is possible and reasonably frequent in the elementary school but it is rather rare in the high school and college. These two arguments undoubtedly possess weight but they are not convincing

because the fact remains that most of our students do not profit by them. Most of those who take a professional course after they finish college and most of those who attain the doctorate are more than 25 years of age.

These conditions constitute the background whence have sprung the numerous agitations for economy in education which have manifested themselves during the past half century. These movements gain greatly in force when it is realized that such economy really can be secured. The thing is actually happening. In all of the leading countries of Europe young people can attain the equivalent of our doctorate in from one to two years less time. Furthermore, in three of the states of the United States and one large city it seems that one year is being saved through shortening the elementary school period from eight years to seven. From the standpoint of arithmetic those who study seven years should know seven-eighths as much as those who study in the same field for eight years. If we think of the whole period those who study twenty-four years should learn 96 percent as much as those who study for twenty-five years. Where is the missing 4 percent in Kansas City, Florida, Alabama and South Carolina? Has it reality? So far as the author knows there is no definite answer to this question as yet.

The product of the European universities should be likewise inferior if the number of years spent at studying is the only element to be considered. Is it? Again a definite answer is lacking but the general opinion is quite to the contrary. It is quite likely that a better educational product is being turned out in a less number of years in Europe for the class given higher education.

There is another matter of fundamental importance which is closely related to the problems under discussion here. Education is usually considered as taking place upon three levels. These levels are exemplified by the elementary school, the secondary school and the college or university. We speak of elementary education, secondary education and higher education. What do these terms mean? The best definitions at present are in terms of location only. Elementary education is that which is gotten in an elementary school, secondary education is that which is acquired in a high school or academy and higher education is that which is obtained when one goes away to college. Whatever these definitions afford in the way of conciseness is lost from the standpoint of profundity. Surely these types of education are more than matters of housing and location.

Our educational system has had its origin in Europe and from there we have gotten our three-fold division. In Europe the distinctions between the three types have been much more marked. The elementary school was the institution in which the pupil got the elements and tools of knowledge. The content centered originally around reading, writing, arithmetic and religion. The purpose of secondary education in Europe was to acquaint the pupil with the

content of human knowledge as worked out in race history. They called this a liberal education. In the universities of Europe the chief aim was and is directed toward constructive thinking and constructive effort of the research type. The elementary school means a mastery of tools for the most part, the secondary school includes a study of foreign languages and the mastery of content, the university is the institution in which the pupil learns to perform his part in some profession or else masters and applies the technique of research. There are no colleges in Europe.

This European system was transplanted in America with some modifications and other modifications have resulted since. These changes have originated primarily in American ideals of democracy which center around the belief in the equality of man and his capacity for unlimited improvement. In Europe the elementary school was to a large extent the school of the lower classes in society. There was no articulation between the elementary and secondary schools and none of the pupils who attended the elementary schools had an opportunity to enter secondary schools. They were born and destined to remain members of the lower caste in society. The pupils who entered the secondary schools were usually tutored in the tools of knowledge or in some cases they were taught together in what were known as foreschools (Vorschulen). Secondary education began at the age of 9 and extended nine or ten years. Then the pupils were ready to enter the university and begin their professional training or training in research.

This sort of a system was clearly out of the question among people who abhorred the caste system and believed in the indefinite improvability of all men. In America, therefore, the elementary schools were articulated with the secondary schools from the beginning. The secondary schools were known as grammar schools at first. Later the academy became the prevailing type of secondary school and still later the high school came. The American college started as a secondary school and gradually extended its course upward. The details of this movement are summarized by Koos.[1] The American university was built upon the college. The length of the college course has remained constant but the entrance requirements have been slowly but continuously raised. This has resulted in a long continued upward extension of secondary education.

On the other hand we have had a corresponding downward extension of the same type of education. In a country in which the sovereignty exists in all of the people it was soon seen that general education is a necessity. There has been a growing realization too that this general education must include more than a mere mastery of the tools of knowledge. The duties of citizenship in a democracy demand considerable knowledge of history, geography, civics and science. The American elementary school has therefore been called

[1]Koos, L. V. *The Junior College.* pp. 242 and ff.

upon to teach elements which constitute the basis for social solidarity and national continuity. In Europe the pupils who were educated in the elementary schools did not belong to the governing class and had no need for such instruction under the type of government that was in existence at that time. These new elements that are crowded down into the American elementary school are secondary in character and we thus have a downward extension of secondary education. It is now thought possible that a mastery of the necessary tools of learning can be attained in six years and there is a general tendency toward the establishment of Junior high schools. As a result of this upward and downward extension of secondary education our pupils begin that type of instruction at the age of twelve and continue it through the Junior high school, the Senior high school, the Junior college and the Senior college. That is, we are planning to spend 6 years at elementary education, 10 years at secondary education and 3 years at higher education.

Most, if not all, of the readers of this monograph will understand very well that there can be no hard and fast boundary lines between the three types of education which have just been described. Not all of the tools of knowledge are mastered in the elementary school. A number of them are taught first in the high school or even in the college. On the other hand, the elementary school presents much training that is secondary in character. Recently there has also been a marked tendency to emphasize creative thinking on the elementary level. At the upper end of the system it is not difficult to find instruction which is academic and secondary going on in courses for which graduate credit is given.

This overlapping of content is probably a desirable condition judging from the data which Koos presents relating to the aims of secondary school, college and university education.[2] Koos summarizes the aims and functions of these schools as contained in the statements of leaders of recognized standing. He lists twenty-one aims and functions contained in the statements of twenty-five leaders. He presents a similar list of twenty-two aims and functions as stated by forty people of recognized standing in the college field and fourteen aims and functions of university instruction obtained from the statements of twenty-five people of repute in the university field. These summaries represent the ideal rather than the prevailing practice. In the university field 88 percent of the statements mention research as a function of the university and 72 percent mention professional training. Most of the remaining functions are of the constructive type but 56 percent mention instruction as a function of university education. The aims for the secondary school and college are much alike. Fourteen of them are identical. The high school aims that are not listed as college aims are intellectual efficiency, mental discipline, college preparation, recognizing adolescence, training in the

[2]Koos. *op. cit.*

fundamental processes, training in the senses and community service. The college aims that are not mentioned among the high school aims are speech, pre-professional training, knowledge for its own sake, development of scholarly interest and ambition, opportunities for specialization, and coördination of the students' work. From the point of view of frequency of mention 85 percent of the college aims are the same as those for the high school and 83 percent of the high-school aims are the same as those represented in the college.

These data tend further to show how completely secondary education includes the work of both the college and the high school and spreads even into the elementary school. This is to be expected in a system that is so closely articulated as is ours. The articulation is a good thing but it has brought with it a spread in secondary education which may be questionable. Koos finds that there is much overlapping between the college and the high school. He estimates that the first two years of collegiate instruction duplicates 36.4 percent of the work given in high school. In these same years of the college 20.1 percent of the work in the social subjects duplicates that in the high school and 9.3 percent of the science duplicates that of the high school.

Why this Investigation was Made

The summary of this introductory chapter constitutes the reasons for the present investigation. It has been shown that the amount of time spent on education is quite large as compared to the same elements in Europe and in certain parts of this country. The chief characteristics of elementary, secondary and higher education have been and still are to a large extent the mastery of the tools of learning, the mastery of the content of worthy knowledge and training in constructive thinking and research, respectively. The amount of time which is spent is not divided evenly among the three types of education. Ten of the nineteen years are devoted to secondary education for the most part. This instruction is given in the Junior-high school, the Senior-high school and the college. These institutions are closely articulated but usually under different management. This would make it quite easy for unsuspected duplication of content to creep in: Koos in a preliminary investigation which was a side issue to his main problem, indicates a rather high duplication in English, the social subjects and science between the college and the high school. In the light of the factors just enumerated it is quite important that efforts be made to ascertain the exact nature and amount of this duplication and also what overlapping, if any, exists between the high school and the elementary school. The present investigation is an attack upon the problem from the standpoint of English composition, United States history and physics including the portion of general science that is most closely related to physics. For check purposes and for purposes of general interest some evidence pointing toward omissions is also listed in Chapter VII and Chapter IX.

CHAPTER II

THE SCOPE OF THE INVESTIGATION

The major question and the question which is of most general interest in connection with this study is easy to state and to understand. It is easy to ask if we are spending too much time at education in general and particularly at secondary education, but it is quite another thing to prove it. In order to do so it is necessary to prove at least one of the two things. If we are spending too much time at secondary education we are either trying to teach too much or we are trying to teach some of our material more than once. The latter case is the one which involves overlapping.

The Arguments for Overlapping

Koos made an attack on the problem in seeking to show the need of the Junior College. His report has been widely read and a defense has been built against it by those who are disturbed or are likely to be disturbed by Koos' findings. This defense occurs in two forms, neither of which attempts to question or contradict the report. One type of defense asks "Is there overlapping? Of course there is and always will be. What is wrong with overlapping anyway? Are not frequent reviews necessary?"

The other line of defense says "Overlapping?" Yes, but the overlapping is apparent rather than real. It is quite possible to teach the same topic in the elementary school, the high school and the college without overlapping at all. In each type of school the subject would be taught from a *different point of view*. For example, the Stamp Act incident may be taught in the elementary school as one of the causes of the Revolutionary War. In the high school it may be presented in connection with a study of colonial government in its relation with the mother country and in the college it might be worth while to teach the Stamp Act again in connection with a study of the general theory of taxation.

Each of these types means something to educational method and compels the consideration of anyone who attempts to gather data of a worth while sort concerning overlapping.

Overlapping Defined

The first of the two types of defense just mentioned suggests that overlapping is synonymous with review and that all review is good. If the problem of overlapping is simply that of how much review we should provide we shall need to assemble data concerning the pupils rather than the subject matter. Scientifically constructed tests should be given at the beginning of each subject in high school and college to ascertain how much the pupils know about the subject before they study it.

Review material could then be prescribed which would just cover all that the pupils had learned in the previous type of school but had forgotten for the moment. Then if the course of study contained anything that all of the class knew beforehand the existence of genuine overlapping would be proved beyond question. Real overlapping exists also whenever we can prove that the amount of review material is larger than necessary. Overlapping of these two kinds must be proved and identified in specific terms before the final chapter on the subject can be written.

A Plan for a Complete Study of Overlapping

The amount of time and labor required to carry through a complete study of overlapping in one subject in a local area is quite extensive. The steps involved would be as follows:

1. Determine just what the pupils have an opportunity to learn in their text books, supplementary material, lectures and other environmental influences such as the movies, the radio and the church.
2. Identify this material for the elementary school, the high school and the college periods. This will give the amount of material which the pupils are required to review and re-learn.
3. Test the pupils from time to time at the beginning of a new course in the subject in order to ascertain what part of the material furnished under (2) above constitutes necessary review and what part constitutes genuine overlapping.

The Limits of the Present Investigation

Before this investigation had more than started it became evident that the whole plan could by no means be completed save in a very small area within the limits of the time and of the appropriation. It was necessary to decide whether to make a complete investigation in a limited area or cover a wide area and endeavor to build a foundation upon which subsequent studies might be based. The second course seemed the wiser and was accordingly chosen. The data to be presented are made up for the most part of the specific elements which children are called upon to learn twice before they finish college.

It was hoped that accurate and rather final information might be secured over wide areas in all three subjects, namely, English, History and Physics in the elementary school, the high school and the college.

Scope of the Data Gathered

It soon became evident that there is one point of major importance that has sometimes been overlooked in studies of overlapping. Text books have changed since pupils now in college were in the grades. To compare the present courses of study in the three types of schools does not give the actual overlapping for anyone. This is because no

one ever attends the elementary school, the high school and the college at the same time. From the standpoint of overlapping the course of study in the elementary school for 1925-26 will be comparable to the Freshman college courses after 1930-31. In like manner the first year courses in the high school for 1925-26 will be comparable to the Freshmen college courses that are offered in 1929-30. Obviously there are no means of knowing what our colleges will be doing four and five years from now. This means that there is little point in comparing the present courses of study in the three types of institutions. The only thing that could be done with any certainty during the few months available for this investigation was to study the curriculum material of the freshman college year as given in 1925-26. Then compare it with similar material which these same pupils had studied during their previous school career. The freshman college class of 1925-26 is usually known as the class of '29 because the class is due to finish its undergraduate work in that year. The group will therefore be referred to as the class of '29 hereafter. The class graduated from high school in 1925. It entered high school in 1921 and the elementary school in 1913 where there was an elementary school of eight grades.

The class began its first text book work in the English language in 1915 or 1916. It had its first text book in history about 1917 or 1918 and studied general science about 1920 or 1921.

The problem of the present investigation is to study the text books in the same editions as they were used by the members of the class 1929 at various times previous to and during 1925-26. It was usually rather difficult to find the books that were wanted. At first it was hoped that the pupils themselves would know what books they had studied. This hope resulted only in disappointment. Many pupils could remember the color of the binding of the book they had studied but hardly anyone knew the name of the authors or publishers.

The next best hope to get the desired information was to limit the study to those states which have had uniformity of text books on a state-wide basis since 1916.

This plan also proved difficult in most cases. There seems to be a high correlation between state uniformity and the good democratic practice of cleaning house in the offices of the State Superintendents at the end of each term. It was very easy to get the present list of text books but to get the list for 1916, 1918 or even 1920 was quite another matter. No one in the office could remember anything about it in most cases. It was necessary, therefore, to make a more or less exhaustive search through the office files. The author succeeded in getting this done in every case but at times it was necessary to visit the Superintendent's office and good naturedly, but plainly give the impression that he was there to stay until the desired list was discovered. Then in most cases a copy was made on the spot because the officials did not wish to have the only remaining copy taken from the office.

Even then the trouble was not over. A number of the books were out of print in the desired editions. Almost invariably the publishers would insist upon sending the latest edition of the book instead of the one desired. After much correspondence the matter was cleared up and all the publishing companies did their best to secure the copies that were wanted even to the extent of loaning the only copies that they had left.

It was finally possible to gather the following data in almost complete form.

1. The text books used in elementary English and general science which were studied by the class of 1929.
2. The text books used in high-school English and Physics by the class.
3. The college text books used in English composition, English literature and physics by the class.
4. American history is usually not studied during the freshman year at college. Where this was not the case the proper adjustments were made. That is, if the class of 1928 were studying American history in 1925-26, that class was traced back and all comparisons were made with the books which were used by this class instead of the class of 1929. Similar adjustments were made with the other subjects when necessary.
5. Laboratory manuals were studied in both general science and physics in both high school and college.
6. Lecture notes and lists of parallel readings were obtained for the college classes.
7. Final examination questions were collected from those used in college during 1925-26.

Complete data of these sorts were collected from the following states: Indiana, West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Montana, Idaho, Oregon, California, Texas, Oklahoma, Arkansas and Kansas. The data from colleges were collected from the state universities in each of these sixteen states except Florida and also from the following institutions—Purdue University, Marshall College, William and Mary College, Wofford College, Florida State College for Women, Emory University, Alabama Women's College, Montana State Normal School, Intermountain Union College, Leland Stanford Jr. University and Texas Christain University.

Later it was necessary to limit the field still further in order to keep within the limits of the time and the appropriation. English literature had to be omitted and American History was the only type of history that could be studied. This left English composition, United States history, and physics. Even then it was utterly impossible to cover all of the sixteen states in all three subjects. Some of the states had to be left out. The basis of the exclusion was entirely one of expedition. We studied first those text books that were used

in more than one state because of the obvious increase of return. The data as presented on the later pages of the monograph cover the following areas: English composition in Indiana, West Virginia, Florida and Oklahoma. United States history in Indiana, Oregon and partially in Florida and South Carolina. Physics and General Science in Arkansas, Florida, California, Virginia, Indiana, Oklahoma, West Virginia, South Carolina and Kansas.

It is not possible to report the precise number of pupils who studied the material reported in this investigation. The following table shows approximate figures only. The column marked *College* gives the number of students in the university who were enrolled in the three subjects during the year 1925-26. The column marked *High School* shows the total enrollment in the first year of the high school during the year 1921-22 in the case of English composition and in the Senior high school year for United States history and physics.

TABLE I

THE APPROXIMATE NUMBER OF HIGH SCHOOL AND COLLEGE STUDENTS WHO STUDIED THE TEXT BOOKS INVOLVED IN THE STUDY

SUBJECT	COLLEGE INTRODUCTORY COURSE	HIGH SCHOOL COURSE
English Composition	2000	47,000
United States History	200	33,000
Physics	2500	20,000
Total	4700	100,000

It is obvious, of course, that the total for the high school includes for the most part the same persons as are included in the figures for the college. It must be remembered too that the figures for the college represent the enrollment of the state university and in most cases one other college or university in each state. The number of pupils who studied the text books under consideration in the elementary school is, of course, much greater than the number who studied in high school. No effort was made to estimate the numbers in the elementary schools because we are interested here only in those who go to high school.

The essential thing here is to note that the material of this study has been related very closely to the educational careers of 4700 pupils in the colleges and 100,000 pupils in the high schools of ten states of our country.

CHAPTER III

METHOD OF THE INVESTIGATION

After the limitations of the investigation had been set it was necessary to decide upon a method of attack. The problem was to select a state, get the books which the pupils had studied, find out what was in the books and ascertain how much of the material of the elementary books was duplicated in the high school books and how much of the high school content was presented again in the college.

It was evident at once that no important advance could be made by counting pages, lines or square millimeters of page surface. The measurement of overlapping in terms of time units was likewise inadvisable. Each of these units is definite and constant in magnitude but none of them are sufficiently fundamental. Each lacks a means of justification against the two types of defense mentioned on page 10. In seeking another unit of measurement it was necessary to sacrifice definiteness and constancy somewhat in order to reach down to a basis upon which there was hope of detecting differences in point of view. Differences in point of view consist of differences in elements of fact and relationship. If it can be shown that the same facts are presented in the same relations or settings in two text books, then one is assured in saying that the pupils who study the two books are required to study material that overlaps. The material thus obtained would represent a combination of material necessary for review and of the material which constitutes genuine overlapping as defined on pages 10-11.

After some preliminary experimentation the author and his helpers decided upon the question as the unit of measurement in this investigation. There were several reasons for this decision. In the first place the question is the sharpest tool which humanity possesses for penetrating into occult allusions, elemental facts and shades of meaning. It is reasonable to suppose that all of human learning and all sense of relationship have been worked out as a result of questionings either articulate or implied. The best way to get at a person's point of view is to ask him questions. The present investigation rests upon the thesis that it is possible to bring out every allusion, every relationship and every fact in a book by asking the right question.

Another very useful property of questions is their susceptibility to classification. This quality is of capital importance in a study as voluminous as this. Our language provides for an almost limitless number of positive forms of statements but there are only nine types of simple questions. They are as follows: What was it? Which is it? How did it come about? Who did it? When was it? Where did it take place? Why did it happen? Was it so or not so? How was it like or unlike something else in respects which are specifically

named? With these nine tools almost any child can make any of us painfully aware of how ignorant we are. For these reasons it was assumed that all thought and fact elements in any subject can be reached by one or another of these nine types.

The assistants were instructed to go through each book sentence by sentence and ask the one of the nine questions that would best bring out the meaning of the sentence. More than one question was used with a sentence when necessary, but almost every sentence was represented by at least one of these nine types. The questions were written on a card and the cards were filed according to recognized divisions of subject matter and according to the type of question. This provided for a maximum number of categories nine times as great as the number of divisions of subject matter. Even under these circumstances the "what" questions were so numerous that subdivisions were necessary. They were accordingly subdivided into "What" questions proper, "Quote" questions, "Give" questions, "Tell about" questions, "Define" questions, "Name" questions, "State" questions, and "Explain" questions. These subdivisions were determined by characteristics which are given in the next chapter. In addition to the nine types it was found necessary to add categories covering assignments and illustrations. Special care was taken to avoid the more complex types of questions of the describe, discuss, outline, trace and write-about type. It was usually possible to break each one of these up and reduce it to one of the nine primary forms. The larger questions were also objectionable because they are the lurking places of the intangible thing which is called difference in point of view. In some cases it was necessary to indicate the answers to the questions as well as the question itself. Where there seemed to be a possibility of more than one answer the right answer was given.

The use of the nine types of questions is open to objection from the standpoint of the constancy of the unit. It cannot be said that the question of "Who led the forces of the Confederacy at the Battle of Gettysburg?" is equivalent in value to the question "When was the Declaration of Independence signed?" or "Why did South Carolina secede from the Union?" In this respect the results of this study are open to question. On the other hand, the significant quantitative statements to be given hereafter are made up of averages of these several units. In this way there is a tendency to counteract any inequalities that may exist. Questions were always broken up into as many elements as possible. For example, the question "Give the terms of the Treaty of Ghent" was counted as three because the answer in the text book gave three terms. In another text book the same question would have been counted as two if only two terms had been named in the answer. A similar procedure was used in all cases in which the answer consisted of more than one element.

The assistants were particularly cautioned against reading meaning into the text book. The ability to read between the lines is constructive in type. It implies constructiveness rather than receptive-

ness on the part of the pupil and therefore transcends the major functions of secondary education as outlined on pages 8-9. Furthermore, a study of all the inferences that might be drawn and of all the material that might be read into a text book is not open to investigation by means of the methods of approach used in this study. For these reasons every effort was made to avoid recording any element that was merely implied in a text book.

By these means it is believed that the influence of difference in point of view has been taken into complete account so far as all explicit statements are concerned. The answers to all of the questions are expressed in single phrases, clauses or simple sentences. When the same questions and same answers occur in different text books the material is said to be duplicated so far as that question is concerned.

The material thus obtained is listed as far as possible in the Appendix B of this monograph. It constitutes a true sampling of the duplication of material that exists among the several text books.

The question of how much of this material is legitimate as review material has not been answered so definitely. One thing was done, however, that has a bearing on this problem. A study of the final examination questions used in the college classes was made to ascertain how much of the material called for in these examinations is answered in the high-school text book in that subject that had previously been studied by all or a large number of the pupils at the college or university. This was done on the assumption that while some overlapping is excusable as review material it is hardly defensible to include review material in final examinations for which college credit is assigned.

The description of the method which was used is quite technical and the writer is not sure that he has succeeded in making it clear. For this reason this chapter is closed with three samples each showing an extract from one of the text books and the questions which were asked concerning them.

Sample Showing the Method of Attack on Two Paragraphs from a Text Book in English Composition Which is Used Rather Widely in Colleges

Extract From the Text Book

(1) According to definition the paragraph is the development of a single idea. (2) In a paragraph of the logical type, that idea is either expressed or can be expressed in a single sentence. (3) In the outline which is worked out in sentence form, the central idea of the paragraph may already have found expression. (4) For the sake of clearness, in order that the reader may know definitely the object of the paragraph, that single sentence may be incorporated in the paragraph itself. (5) But whether it is or not, the test of unity in any paragraph of the logical type is this—Can it be sum-

med up in a single unified sentence? (6) When this sentence is expressed it is called the topic sentence of the paragraph. (7) In the majority of cases it will be found at the beginning of the paragraph. (8) This is almost universally true when ideas require definition and is the common practice when a general principle is to be established by examples or illustration. (9) Often, however, the topic sentence is not the very first sentence of the paragraph. (10) The opening sentence or the first part of the opening sentence may be devoted either to showing the relation of the paragraph to the preceding paragraphs, or to emphasizing the importance of the topic itself.

Questions listed for these paragraphs:—

1. (1) Define a paragraph.
2. (3) Where may the central idea be expressed before it becomes an actual part of the paragraph?
   (Answer in the outline.)
3. (4) Why may a single sentence, embodying the central idea of a paragraph in the outline be incorporated in the paragraph itself?
4. (5) Give the test for unity in a paragraph of the logical type.
5. (6) Define a topic sentence.
6. (7) Where does the topic sentence usually occur?

When does the topic sentence occur at the beginning of a paragraph?

Answers:—

7. (8) When ideas require definition.
8. (8) When a general principle is to be established by examples or illustration.

To what may the opening sentence be devoted when it is not the topic sentence?

Answers:—

9. (10) Showing the relation of the paragraph to the preceding paragraphs.
10. (10) Emphasizing the importance of the topic itself.

Sentences omitted:

"In a paragraph of the logical type, that idea either is expressed or can be expressed in a single sentence";
and "Often, however, the topic sentence is not the very first sentence of the paragraph."

The extract which has been just been presented was one of the first studied by this particular assistant. It was picked out of the files partly at random and partly because it exemplifies the use of six types of questions. It will be noticed that there are ten sentences in the selection and ten questions covering them. The question relating to sentence number 8 was counted twice because two answers are required. The same is true of the question relating to sentence number 10. In each case the answers are printed with the questions.

On the other hand there are no questions which cover sentences number 2 and number 9. It will be noted, however, that sentence 2 is implied in question 5 and sentence 9 is implied in questions 9 and 10. Evidently the assistant thought that these sentences were not of sufficient importance to warrant special questions. This may or may not be correct. An inspection of the data shows that the workers became increasingly conscious of these points as the study progressed. The general tendency towards the last was to play safe and ask a question about every sentence even when the value of the sentence seemed small.

A Sample of the Treatment of Elementary History

Extract from the Text Book

(1)Before we consider the slavery question, let us briefly refer to a few other events. After twelve years of patient effort, (2)Samuel F. B. Morse succeeded in bringing the electric telegraph into practical use (1884). (3)Being poor, he had tried for four years to get an appropriation from Congress for testing his invention. (4)At length Congress reluctantly voted him $30,000 for constructing a line from Baltimore to Washington a distance of forty miles.

(5)Morse himself sent the first message from the Supreme Court room in Washington to Baltimore. (6)"What hath God wrought" was the message. (7)Fitting words were these, since the telegraph has brought great changes into the world. (8)By means of it trade and commerce have been much increased. (9)Business men can keep themselves acquainted with the quotations of the world's great markets every hour in the day. (10)They can transact more business in five or six hours now than could have been transacted in so many months a hundred years ago.

Questions:—

1. (2) How long did it take Morse to bring the electric telegraph into practical use?
2. (2) Who was Samuel F. B. Morse? (Answer—The man who succeeded in bringing the electric telegraph into practical use).
3. (2) When was the electric telegraph first put into practical use?
4. (3) Why did Morse want an appropriation from Congress? (Answer—He was too poor to test out his invention himself.)
5. (3) How long did Morse try to get an appropriation from Congress to test his invention?
6. (4) How much money did Congress finally appropriate for Morse?
7. (4) Where did Morse put up his first real line?
8. (4) How long was Morse's first real line?
9. (5) Whence did Morse send his first message?
10. (5) Where did Morse send his first message?
11. (6) Quote Morse's first telegraph message.

What are the results of the telegraph system?

Answers:—
12. ([8]) Trade and commerce have been increased.
13. ([9]) Business men can keep in touch with markets.
14. ([10]) Length of time taken to transact business much shortened.

This selection was chosen at random. It contains ten sentences and fourteen questions were used to get at the meaning. The distribution of the questions among the sentences is of interest because it represents situations that arise quite frequently in the portion of the study devoted to history. The first sentence is not represented at all among the questions. This is because the assistant judged that the sentence is for transitional purposes only and does not contain historical content. Three questions were asked concerning sentences two and four. Neither of these sentences are very long in words but they are full of historical elements. The third and fifth sentences each get two questions. The sixth, eighth, ninth and tenth sentences each get one question regardless of their length. The seventh sentence is not represented at all because all of the elements which it covers (so far as this text book is concerned) are given in the sentences that follow. This was done consistently where a generalization was followed immediately by a detailed analysis.

Sample from High School Physics

Extract from the Text Book—Molecular Theory of Gases

([1])To explain the pressure of gases and their diffusion, it is now generally believed that all substances consist of very minute particles called molecules. ([2])These molecules are so minute that we cannot see them with the most powerful microscopes. ([3])In one cubic centimeter of a gas there are not less than 25×10^{18} (that is, 25 followed by 18 ciphers) molecules. ([4])The spaces between the molecules are much larger than the molecules themselves. ([5])This explains why gases are so easily compressed and diffuse so quickly.

([6])Then, too, these little particles are flying about in all directions with great velocity. ([7])They travel in straight lines except when they hit each other and bounce off. ([8])Gas molecules seem to have no inherent tendency to stay in one place as do the molecules of solids. ([9])This explains why gases fill the whole interior of a containing vessel. ([10])This also explains gas pressures, for the blows which the innumerable molecules of a gas strike against the surrounding walls constitute a continuous force tending to push out these walls. ([11])When a gas is compressed to half its volume, the pressure is doubled, because doubling the density doubles the number of blows struck per second against the walls. ([12])It has even been possible to calculate the molecular velocity necessary to produce this outward pressure. ([13])It appears that the molecules of gases under ordinary conditions are traveling at speeds between 1 and 7 miles per second. ([14])The speed of a cannon ball is seldom greater than one-half mile per second. ([15]) This in brief is the so-called kinetic theory of gases.

Questions:—

1. ([1]) Define molecules.
2. ([2-3]) How small are molecules?
3. ([4]) Compare the sizes of the molecules with the size of the spaces between them.
4. ([4]) Why do gases compress and diffuse so quickly?
5. ([6]) How do molecules move?
6. ([7]) What direction do molecules travel in?
7. ([8]) Compare gas molecules with the molecules of solids.
8. ([8]) Why do gases fill the whole interior of a containing vessel?
9. ([8]) What causes gas pressure?
10. ([11]) Why is the pressure doubled when a gas is condensed to half its volume?
11. ([11]) State the law regarding the variance of density and pressure of gas.
12. ([12]) State whether it is possible to measure molecular velocity.
13. ([13]) Give the speed of molecules of gases under ordinary conditions.
14. ([14]) Compare speed of molecules of gas and speed of cannon ball.
15. ([8-15]) Define briefly the kinetic theory of gases.

In closing this chapter the author wishes to emphasize these points. Questions were used because of the ease with which they search out elements of meaning and because of the help which they give to the problem of obtaining a classification that is practicable for purposes of comparison. Emphasis was placed upon a multitude of small questions because of the well-established law that accurate measures depend upon small units. One cannot measure accurately with miles, but one can achieve triumphs with the infinitesimal element in calculus. Physics is based upon invisible molecules and chemistry upon still smaller atoms and ions. For these reasons it seems wise to pin one's faith to the smallest possible unit in investigations of this sort.

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CHAPTER IV

THE VALIDITY AND RELIABILITY OF THE METHOD

The possibility of variation due to the judgment factor in recording questions has been hinted at in the preceding pages. Two questions are involved here. The reader may wish to know to what extent different judges may read the same material and get the same meaning out of it. Those who have had experience with this sort of a study will want to know further how it was possible to keep the several categories separate throughout the investigation. Do not the name, state, give, how, what and why questions get inextricably confused?

These questions are pertinent and fundamental to this investigation. In deciding what a text book is about it is impossible to exclude all of the subjective elements. In the present case it was necessary to proceed at first by methods of trial and error, since no technique of this sort has been published heretofore so far as the author knows. At the beginning it was necessary to spend nearly a month in a sort of preliminary skirmish with the data. The assistants worked for two or three weeks at writing the questions and cataloging the cards. Then all of the people who were studying History made out cards on the same passage, each working independently. Those working in English and Physics did the same. Then the cards of each worker were examined and compared. Several problems were disclosed in this manner. One of these was the tendency to read between the lines. Questions were inserted for which no explicit answers could be found in the text. There was also a tendency to ask broad and general questions that could not be compared accurately. Finally there was a tendency for different workers to classify the same question in different categories. The experience of having all inferences and general questions blue-penciled was sufficient to take care of the first two problems. The third problem was solved by numerous conferences. Certain arbitrary characteristics were agreed upon to designate the different categories that had proved troublesome. These characteristics varied somewhat according to subject. Accordingly they are given in full for each subject.

Characteristics of Categories for Questions in English Composition

1. *Assignments:* These include everything that the pupils were asked to do.
   Example: Study the arrangement of the sentences in this (given) paragraph.
2. "*Compare*" *questions:* One of these was used each time two or more definite elements were compared or contrasted.
   Example: Compare sentences with paragraphs as to unity.

3. *"Define" questions*: These are "what" questions that are either logical definitions or mere identifications.
   Example: Define a transition paragraph.
   Define a noun.
4. *"Explain" questions:* (very few) These are a subdivision of "how" questions. They were used in connection with material which was cited in the text in order to illustrate some principle.
   Example: Explain how these (given) sentences illustrate coherence.
5. *"Give" questions:* These are subdivisions of what questions. They were used to cover two types of material—the quotation of rules and principles and the enumeration of lists of uses, methods, steps and so on.
   Examples: 1. Give the rule for coherence in composition.
   2. Give *four* methods of securing material for compositions.
6. *Illustrations:* These include all applications of text material as contained in the book.
   Example: Illustrate the use of the hyphen.
7. *"Name" questions*: These are another type of "what" questions which were arbitrarily restricted to types of material or types of words.
   Examples: Name four forms of discourse.
   Name four relative pronouns.
8. *"How" questions:* These cover questions beginning with how far, how much, how many, etc. They also include elements of manner and method when only one type is given.
   Example: How may emphasis be attained in a composition?
   Answer: By giving proper proportion to the several ideas.
9. *"What" questions:*
   Example: What is the aim of all composition?
10. *"When" questions*: In the English study *when* means on what occasion.
    Example: When is the principle of coherence violated in a composition?
11. *"Where" questions:* "Where" is used to indicate position.
    Example: Where should the important points be placed in a composition?
12. *"Which" questions:*
    Example: Which is the most common form of discourse?
13. *"Who" questions:* (Very few)
    Example: Who is the author of a good book on synonyms?
14. *"Why" questions:* These cover all sentences, clauses and phrases which embody reasons.
    Example: Why is it important to state the topic sentence before selecting the details?

Characteristics of Categories for Questions in History.

1. *"Compare" questions:* These include contrasts as well. They are limited to one point of view in each case.
   Example: Compare the size of Columbus' ships with that of the ships of the present day.
2. *"Describe" questions:* These are restricted to word pictures of localities, battle grounds, etc.
   Example: Describe Cemetery Hill with reference to its shape, size, etc.
3. *"Discuss" questions:* These are complexes of smaller questions. The elemental questions only are used in ascertaining the amount of duplication. "Discuss" questions always indicated that the author treated the subject at some length.
   Example: Discuss the New England town government.
4. *"How" questions:* These cover such elements as; (how did so and so affect so and so) attitudes, (how did so and so feel about so and so) length of time or space, manner, amount and number.
   Example: How did bickering over inter-state trade affect the relations among the states?
5. *"Quote" questions:*
   Example: Quote Arnold's dying words.
6. *"Tell" questions:* These cover brief statements of material in the text proper. They also apply to biographical sketches of historical figures or sketches of battles as given in footnotes. Individual questions were asked concerning footnotes if the content seemed to warrant it.

   Examples:

   From text proper—Tell how the people felt about the success of Columbus' voyage before he left.
   From the footnotes—Tell about the battle of Monmouth. Tell about the life of Thomas Jefferson.
7. *"Give" questions:* These refer to lists of material and all material in outline form.
   Example: Give the provision of the Treaty of Paris.
   1. Recognition of independence of the colonies.
   2. Extension of boundaries.
   3. Fishing concessions.
   4. Provision that colonies would offer us objection to collection of bona fide English debts.
   5. Right of Great Britain and colonies to navigate Mississippi.
8. *"What" questions:*
   Example: What industries were especially interfered with by the Revolutionary War? What was the outcome of the Battle of Cowpens?

9. *"When" questions:* These include both dates and circumstances.
   Examples: When did the Battle of Monmouth occur?
   When did Buchanan offer no resistance to the secession of states.
   (1) At the actual time of secession.
   (2) At time of firing on Star of West.
10. *"Where" questions:* These refer to geographic location only.
    Example: Where did Washington overtake Clinton on his way to New York?
11. *"Who" questions:*
    Example: Who was Benjamin Franklin?
12. *"Why" questions:* These cover all statements of causes and reasons.
    Example: Why was Marion given the name of "The Swamp Fox?"

Characteristics of Categories for Questions in Physics

1. *"Compare" questions:* One respect only.
   Example: Compare the winter humidity of the average home with that of the desert.
2. *"Give" questions:* These are always numerical in character. Each one must contain a number explicitly expressed. These questions cover numerical tables also.
   Example: Give the amount that the average person perspires in a day.
3. *"Define" questions*: Definitions and identifications.
   Example: Define dew point.
4. *"Explain" questions:* These cover large areas in a concrete manner. They were used in connection with examples and experiments. Where the apparatus, a graph or an instrument is pictured the question is always *"explain graphically."*
   Examples: Explain the computation of relative humidity.
   Explain graphically the construction and use of the tangent galvanometer.
   Explain how a summer camper may sink a cheap well.
5. *"Name" questions:* These are "what" questions whose answers constitute a series of at least two elements.
   Example: Name the effects of living in air that is constantly hot and dry. (Three elements)
6. *"State" questions:* These questions cover laws, formulas and reasons.
   Example: State the law governing the direction of the winds.
7. *"State whether" questions:* These are of the true-false type.
   Example: State whether the air above lakes and oceans is often saturated.

8. *"What" questions:*
   Example: What may be done to remedy low relative humidity in a house?
9. *"When" questions:* These include both dates and circumstances.
   Examples: When does rain fall?
   When did Onnes achieve a temperature of -271.3C?
10. *"Where" questions:*
    Examples: Where may frost be observed?
    Where did Onnes live?
11. *"Who" questions:*
    Example: Who was James Watt?
    Who invented the Dewar flask?
12. *"Why" questions:*
    Example: Why do drops form on the outside of a pitcher of ice water in summer?

A copy of the foregoing material was put into the hands of all who were engaged as helpers in this part of the study. Then everyone engaged in the study of any one subject went over another passage. Three of these extracts were used, one for English, one for History and one for Physics. These passages were entirely different from those studied in the preliminary try out. All of the helpers in English Composition made questions for the one passage in English, each working independently. The same procedure was used in the other two subjects. Then the questions of each person were compared. Evidence of difference in viewpoint of the several workers were apparent but the results in general were surprisingly good. Before looking over the questions asked by his helpers the writer wrote out questions himself on each of the three passages. The writer will be known as Judge 4 hereafter. Judge 1 is the chief assistant in History, Judge 5 is the chief assistant in English and Judge 8 is the chief assistant in Physics. Space is not available to present all of the questions asked by every judge but a detailed comparison is offered between the questions of Judge 4 and those of each of the three chief helpers. The judgments of all other helpers are presented in summary form only.

Types of Questions Asked

The comparison of the questions asked by different judges on the same material showed that relatively few of the questions are precisely the same. These are referred to hereafter as "*Same Question in Same Words.*" The type of questions listed as "*Same Questions in Different Words*" occurred more frequently. A third type is labeled "*One Implied in Another.*" In this type one question is broader than the other but the questions are so stated that any one who answers the broader question asked by one judge will also answer the narrower question asked by the other judge. Another type of

question is designated *"Complementary Questions."* In these cases the answer to one question is stated explicitly in the other question. Thus if one question were "What happened on July 4, 1776?" the other question would be "When was the Declaration of Independence signed?" The final type of question is called *Different Questions.* This type represents the lack of agreement between the judges.

HOW VALIDITY WAS MEASURED

Methods of measuring validity of judgments of the types under consideration here seem entirely undeveloped. So far as the author knows no one has attempted to measure this sort of validity before. The method to be described here is presented for what it is worth. No elaborate defense for it is offered. The method was used because it was the best one that the author or any of his associates could think of. It is very simple. First find the percents obtained by dividing the total of all the questions asked by both judges by the total number of "Different Questions" asked by both of them. Subtract this percent from one-hundred percent. The result is the desired expression for the validity of the two sets of judgments. The detailed working of the plan is presented in detail in the sections which follow.

Agreement Between Judges 4 and 5 in English Composition

The following list contains all of the questions asked by both judges on a passage beginning on page 25 and ending on page 31 of Lewis and Hosic—*New Practical English for High Schools,* 1916 edition.

Type I. Same Questions in Same Words

Assignments

1. Paragraphs to be written on limited subjects. Fifteen given to select from.
2. Tell the subjects of each paragraph in two talks.
3. Write the topics of four paragraphs.
4. Write topic sentences for three paragraphs on some familiar subject. 8

"How" questions

5. How do you think when you think logically? 2

"What" questions

6. What is the effect of a succession of long solid pages on the reader?
7. What happens to the audience when the speaker rambles along and jumbles his ideas? 4

"Where" questions

8. Where does the topic sentence usually appear?
9. Where does the topic sentence sometimes appear? 4

"Why" questions

10. Why must the speaker present his ideas in paragraphs?
11. Why should the topic sentence be put near the beginning of a paragraph? 4

Total 22[3]

TYPE II SAME QUESTIONS IN DIFFERENT WORDS.

Assignments

1. Stating the subjects of paragraphs.
   Paragraphs for study with questions on the topics of each.
2. Speaking from two topic sentences selected from 23 sentences given at first of paragraphs.
   Class to be able to speak for one minute on either of 2 selected from 23.
3. Class to criticize speaker as to enunciation and relevancy.
   Criticism by class on understanding and unity of paragraphs.
4. Paragraphs to be assigned by teacher. Topic sentences to be picked from these.
   Teacher assigns magazine articles for study of paragraph topics. 8

"How" questions

5. How long may a paragraph be without divisions?
   When is it wise to divide a paragraph?
6. How are sentences arranged in a paragraph?
   What should the writer always see to?
7. How are paragraphs arranged in the composition?
   What else should the writer see to? 6

"What" questions

8 and 9. What is a paragraph?
   Define a paragraph.
10. What is meant by paragraph form?
    Define paragraph form.
11. What is a topic sentence?
    Define a topic sentence.
12. What may happen if the reader does not quickly and easily grasp what the paragraph is about?
    What is the effect on the reader when the topic is not clear? 10

Total 24

TYPE III ONE QUESTION IMPLIED IN ANOTHER

"How" questions

1. How were paragraphs written for centuries?
   How long have perfect paragraphs been in use?
2. How were sentences written for centuries?
   How long have perfect sentences been in use?

[3] Each question was asked twice.

3.[4] How were paragraphs written for centuries?
Did people in early times indicate paragraph endings?
4.[4] How were sentences written for centuries?
Did people in early times indicate sentence endings? 6

"Why" questions

5. Why are capital letters, punctuation marks and paragraphs important?
Why is the division into paragraphs an important invention?
Why are capital letters and punctuation marks important modern inventions? 3

Total 9

TYPE IV COMPLEMENTARY QUESTIONS

"How" questions

1. How are paragraph divisions of value to the writer as well as to the reader? 5
Compare the value of paragraph divisions to writer and reader.
2. How can the writer test the unity and development of his thought?
How are paragraph divisions of value to the writer as well as to the reader?
3 How is the topic of the second paragraph expressed?
Does the topic sentence always appear in a paragraph?

"What" questions

4. What modern invention helps the reader to get the thought easily and quickly?
What is the function of the paragraph form?
Why are paragraph forms used?
5. What sentences only may be included in a paragraph?
What should the writer be sure of first?
6. What is the cause of rambling?
What is the result of not thinking in paragraphs?
7. What is the advantage of carefully planning paragraphs?
What will generally determine paragraph divisions?
8. What does the good writer do to save the mental energy of the reader?
What does the writer save for the reader by showing clearly what he is writing about? 11

"Why" questions

9. Why is the topic sentence sometimes placed near the end of a paragraph?
What does the topic sentence show when at the end of the paragraph? 2

Total 18

[4] A duplicated question. It is counted only once.

TYPE V DIFFERENT QUESTIONS

"Compare" questions

1. Compare the principles of the paragraph for writer and speaker.

"How" questions

2. How does the first paragraph from Treasure Island (page 25) illustrate the placement of the topic sentence?

"What" questions

3. What is not a paragraph?
4. What will help determine the length of paragraphs?
5. What is the topic of the second paragraph of Treasure Island page 25?
6. What does this paragraph illustrate concerning the topic sentence?
7. What is the topic of the third paragraph?
8. What does a good paragraph often contain?
9. What should always be remembered by a writer?
10. What must an author always do?

"Yes—No" questions

11. Is it easy to overemphasize the idea of a topic sentence?
12. Must the author always use a sentence that can be labeled as the topic sentence?

TABLE II

SUMMARY OF AGREEMENT—JUDGES 4 AND 5

TYPE OF QUESTION	SAME QUESTION	*SAME QUESTION DIFFERENT WORD	ONE IMPLIED IN ANOTHER	COMPLEMENTARY QUESTION	DIFFERENT QUESTION	TOTAL
Assignment	8	8	0	0	0	16
Compare	0	0	0	0	1	1
How	2	6	6	5	1	20
What	4	10	0	11	8	33
Where	4	0	0	0	0	4
Why	4	0	3	2	0	9
Yes—No	0	0	0	0	2	2
Total	22	24	9	18	12	85

85.9 percent Agreement.

The summaries for every other pair of judges were obtained in a similar manner.

Table III shows the percent of agreement in each case.

TABLE III

SUMMARY OF AGREEMENT FOR ENGLISH

JUDGES	4	5	6	7
4		85.9	82.6	87.5
5			94.3	88.8
6				88.0
7				

Averages of each judge with the other three.

Judges	4	5	6	7
Averages	85.3	89.7	89.9	89.8

Agreement between Judges 1 and 4 in United States History

The following list contains all of the questions asked by both judges on a passage from Thompson's *History of the People of the United States*, 1919 edition, beginning on page 118 and ending on page 129.

TYPE I SAME QUESTIONS IN SAME WORDS

"How" questions

1. How many colonies were represented at the Stamp Act Congress?
2. How was the first day that the Stamp Act took effect ushered in?
3. How was the news of the repeal of the Stamp Act received in America and in parts of England?

"What" questions

4. What were the requirements of the Stamp Act?
5. What became the watch-word in the colonies at this time?
6. What was the effect of the Stamp Act on the colonies?
7. What compact did the merchants enter into to get the Stamp Act removed?
8. What sort of clothing became the fashion as a result of the "Non-importation Agreement?
9. What colonial assembly was first to take action?
10. What resolutions were declared by the Virginia Assembly?
11. What happened to all Stamp distributions?
12. What was the effect of the opposition of the colonists and of the London merchants to the Stamp Act?
13. What acts relating to the colonies did Parliament pass during the year after the repeal of the Stamp Act?
14. What was the purpose of these acts?
15. What things were taxed in the Townshend Acts?
16. What did Parliament request the king to do in 1769?

"When" questions

17. When was the Stamp Act passed?
18. When did the Stamp Act Congress meet?
19. When did the Stamp Act go into effect?
20. When was the Stamp Act repealed?
21. When were the Townshend Acts passed?

"Where" questions

22. Where was the Non-Importation Agreement begun?
23. Where did the Stamp Act Congress meet?

"Who" questions

24. Who introduced the resolutions relating to the Stamp Act into the Virginia Assembly?
25. Who was Christopher Gadsden?
26. Who was John Ashe?
27. Who favored the repeal of the Stamp Act in the House of Commons?
28. Who favored the repeal of the Stamp Act in the House of Lords?
29. Who guided the assembly in Massachusetts in its protest against the Townshend Acts?

"Why" questions

30. Why was the rejoicing over the repeal of the Stamp Act short-lived?
31. Why did the colonial officials sent from England want Parliament to tax the colonies?

Total 62[5]

TYPE II SAME QUESTIONS IN DIFFERENT WORDS

"How" questions

1. How were the Townshend Acts received?
   How were the Townshend Acts denounced?
2. How was the revenue from the Stamp Act to be used?
   For what purpose was the revenue from the Stamp Act to be used?
3. How was the Stamp Act discussed and talked about?
   What did the colonists do when they heard about the Stamp Act?
4. How were the Virginia Resolutions received by the country?
   What was the effect of the Virginia Assembly on the remainder of the country?
5. How was the business affected by the Stamp Act handled?
   What happened in the case of business affected by the Stamp Act?
6. How did many people in England feel about the colonists?
   What was the attitude of some English people toward the Stamp Act?
7. How was the affection of the colonists once more turned?
   What was the result of the appeal of the Stamp Act in America?
8. How did the colonists determine to defeat the purposes of the Townshend Acts?
   What did the colonists decide to do about the Townshend Act?
9. How did the Massachusetts circular letter affect the king when he received it?
   What was the attitude of the king toward the Massachusetts circular letter?

[5] Each question is counted twice.

10. How did the Stamp Act affect newspapers and advertising?
    To what things did the Stamp Act apply other than legal papers?
11. How was the news of Parliament's insistence upon the right to tax America received in America?
    What was the colonial attitude toward Parliament's declaration of its right to tax America?

"Quotation" questions

12. What did Christopher Gadsden say of South Carolina's entrance to the Stamp Act Congress?
    "Had it not been for South Carolina, no congress would then have happened." Gadsden.
13. What was John Ashe's reply to the Governor of North Carolina on the tax question?
    "We will resist its execution to the death." Ashe.
14. What did Virginia do for the continent?
    "Virginia rang the alarm bell for the continent."

"What" questions

15. What did the colonists object to in the Stamp Act Tax?
    From what point of view did the colonists object to the Stamp Act Tax?
16. What was the Non-Importation Act?
    What was the name of the compact entered into by the merchants?
17. What colony was first to accept Massachusetts' invitation to an American Congress?
    What colony started the response to the invitation finally?
18. What did the speaker of the North Carolina Assembly say about the Stamp Act?
    What was done in the North Carolina Assembly about the Stamp Tax?
19. What did the Governor of North Carolina do with the Assembly in that State?
    What did the Governor do then? (After the Assembly resisted him)
20. What petitions did the English merchants send to Parliament?
    What did the London merchants do?
21. What did Parliament declare when it repealed the Stamp Act?
    Upon what did Parliament insist?
22. What did the resolutions of Adams assert in the petition on the Townshend Acts?
    What did the Massachusetts Assembly resolutions assert?
23. What action did the king take after receiving the Massachusetts circular letter?
    What order was issued as a result of the Massachusetts circular letter?
24. What was the effect of the Acts of 1769?
    What was the attitude of the colonists toward the plan to have Americans taken to England for trial?

25. What two reasons were there why the colonists should not object to the Stamp Act?
What kind of a tax was the Stamp Act Tax?
26. What were the Sons of Liberty Societies?
Who were the Sons of Liberty?
27. What was the purpose of the Sons of Liberty Societies?
Why did the Sons of Liberty organize?
28. What materials did the Stamp Act Congress address to the king and Parliament?
Give the main points in the memorial from the Stamp Act Congress to the king and Parliament.
29. What double danger lay behind the Townshend Acts?
What was being forced upon the colonists that they did not need?

"When" questions

30. When did Parliament request the king to bring Americans to England for trial?
When did Parliament request the king to have all persons in America charged with opposition to laws arrested and taken to England?

"Why" questions

31. Why did the colonists mourn and then rejoice on the day on which the Stamp Act went into effect?
Why was the day on which the Stamp Act was to go into effect changed from one of mourning to one of rejoicing?
32. Why did the Stamp Act fail?
Why could the Stamp Act not go into effect?
33. Why did the London merchants want the Stamp Act repealed?
Why did the merchants in London and other cities petition Parliament for the repeal of the Stamp Act?
34. Why was the Townshend Tax Act worse than the Stamp Act for the colonies?
Why did the Townshend Tax Act threaten liberty more than the Stamp Act did?
35. Why did the colonists object to the principle of the Stamp Act?
What might have resulted if it had been admitted that the Americans might be taxed without their consent?

TYPE III ONE QUESTION IMPLIED IN ANOTHER

"Compare" questions

1. Compare the Townshend Tax Act with the Stamp Act as to effect upon the colonies.
*Why was the Townshend Tax Act worse than the Stamp Act for the colonies?

"How" questions

2. How did Patrick Henry end his speech about Tarquin and Caesar?
3. What words did Patrick Henry use in his speech on taxation?

4. How were the stamp distributors treated?
5. What happened after the "Son's of Liberty" were organized?

"Tell" questions

6. Tell about the day the Stamp Act was supposed to go into effect.
   *Why was the day on which the Stamp Act went into effect changed from one of mourning to one of rejoicing?

"What" questions

7. What did Patrick Henry say about Tarquin and Caesar?
   What did the president of the assembly and other members say then?
   Tell of the incident in Patrick Henry's famous speech.
8. To what things did the Stamp Act tax other than legal papers?
   *What were the requirements of the Stamp Act?
9. What was the attitude of the colonists toward the Stamp Act?
   *From what point of view did the colonists object to the Stamp Tax?
10. What did one of the Townshend Acts say about taxing the colonists?
    *What was the purpose of these (Townshend) Acts?
11. What was the message of the letter sent out by the Massachusetts Assembly?
    *What did the Massachusetts' Assembly resolutions assert?

"Which" questions

12. Which assemblies indorsed the Massachusetts' circular letter?
    *What state assemblies were dissolved for endorsing the circular letter?

"Who" questions

13. Who was Samuel Adams?
    *Who guided the Assembly of Massachusetts in its protest against the Townshend Acts?
14. To whom did the Massachusetts Assembly send its protest against the Townshend Acts?
    *What circular letter was sent to the other colonies from Massachusetts?

"Why" questions

15. Why did the Massachusetts Assembly send a circular letter to the other assemblies?
    *What invitation did Massachusetts extend to the other colonies?
16. Why were the Assemblies of Maryland, South Carolina and Georgia dissolved?

Total 19

TYPE IV COMPLEMENTARY QUESTIONS

1. What state assemblies were dissolved for endorsing the circular letter?

The questions under Type III marked thus have been included elsewhere and are not counted here.

2. What did the Virginia Assembly do?
3. What happened to it then?
4. What was done to the Assemblies of Maryland, South Carolina and Georgia?
5. What assembly invited the other American colonies to join in an American Congress?
6. What invitation did Massachusetts extend to the other colonies?
7. What circular letter was sent to the other colonies from Massachusetts?
8. What did the Massachusetts Assembly send to other Assemblies in reference to the Townshend Acts?

"Who" questions

9. Who was William Pitt?
   *Who favored the repeal of the Stamp Act in the House of Commons?
10. Who was Edmund Burke?
    *Who favored the repeal of the Stamp Act in the House of Commons?
11. Who was Lord Comden?
    Who favored the repeal of the Stamp Act in the House of Lords?
12. Who wanted Parliament to tax the American colonies?
    Why did the officials sent over to govern the colonies want Parliament to tax the American colonies?

Total 12

TYPE V DIFFERENT QUESTIONS

"Give" questions

1. Give samples of the legal papers to which the Stamp Act applied.

"How" questions

2. How were legal papers rendered if not written on stamped paper?
3. How could the Massachusetts Assembly escape being dissolved?

"What" questions

4. What legislative body passed the Stamp Act?
5. What response was made to the invitation of Massachusetts at first? (Stamp Act Congress).
6. What did the Massachusetts Assembly do about the Townshend Acts?
7. What did the Massachusetts Assembly do about the order of dissolution?
8. What did the other assemblies think of the Massachusetts' circular letter?
9. What classes of people discussed the Stamp Act?
10. What kind of articles were used by the colonies?

"When" questions

11. When did the Massachusetts Assembly send out the circular letter?

"Who" questions

12. Who dissolved the Massachusetts Assembly after it refused to rescind?

Total 12

TABLE IV

Summary of Agreement for Judges 1 and 4

Type of Question	Same Question Same Words	Same Question Different Words	One Implied in Another	Complementary	Different Questions	Total
Compare	0	0	1	0	0	1
Give	0	0	0	0	1	1
How	6	22	4	0	2	34
Quotations	0	6	0	0	0	6
Tell	0	0	1	0	0	1
What	26	30	7	8	7	78
When	10	2	0	0	1	13
Where	4	0	0	0	0	4
Which	0	0	1	0	0	1
Who	12	0	3	4	1	20
Why	4	10	2	0	0	16
Total	62	70	19	12	12	175

93.1 percent Agreement.

The percent of agreement for each other pair of judges was obtained in a similar manner. Table V shows the amount of agreement for each pair of judges.

TABLE V

Summary of Agreement in History

Judges	2	3	4	10	11	Judges
1	87.3	88.9	93.3	91.0	89.4	1
2		92.3	90.4	94.2	91.4	2
3			92.9	94.6	92.7	3
4				95.5	91.5	4
10					96.4	10
11						11

Averages of each judge with the other five.

Judges	1	2	3	4	10	11
Averages	90.0	91.1	92.3	92.7	94.3	92.3

Agreement Between Judges 4 and 8 in Physics.

The following list contains all of the questions asked by both judges on passages from Black and Davis: *Practical Physics.* 1925

edition. The questions cover Sections 84, 87, 88, 89, 90, 91, 92, 93 and 96.

TYPE I SAME QUESTIONS IN SAME WORDS

"Define" questions

1. Isobars.

"Explain" questions (Relating only to the set up of experiments and illustrations)

2. Explain how we know that air has weight.
3. Explain a barometer.
4. Explain an aneroid barometer.
5. Explain a weathermap.
6. Explain the curve showing the relation of atmosphere pressure and altitude.
7. Explain the experiment showing the lifting effect of air.

"Give" questions (Numerical answers only)

8. Give the weight of a liter of air under ordinary atmospheric conditions.
9. Give the weight of a cubic foot of air under ordinary atmospheric conditions.
10. Give the density of air under ordinary atmospheric conditions.
11. Give the density of hydrogen under ordinary atmospheric conditions.

"How" questions

12. How can we discover how great the downward pressure of the air really is?

"State" questions

13. State whether air occupies space.
14. State whether air has weight.
15. State whether the decrease in pressure is less in high altitudes.

"What" questions

16. What did Galileo say about nature abhorring a vacuum?
17. What is meant by reading the barometer?
18. What is a barometer used for?

"Who" questions

19. Who was Galileo?
20. Who was Torricelli?

"Why" questions

21. Why do we usually fail to realize that air has weight?
22. Why does the water fail to rise in a tumbler that is forced top downward into the water?
23. Why are we not aware of the pressure of the air?
24. Why does a liquid rise in an exhausted tube?
25. Why do mountain climbers and aeroplanists carry barometers?

Total 50

TYPE II SAME QUESTIONS IN DIFFERENT WORDS

"Compare" questions

1. Compare the weight of a balloon with the volume of air it displaces.
   Compare the weight of most objects with the amount of air they displace.

"Define" questions

2. Define a barometer.
   What is a barometer?

"Explain" questions

3. Explain how to show the pressure of the air (a) with the lungs and (b) with an air pump.
   Explain how to remove the upward pressure of the air (thistle tube experiment).
   Explain how to remove the upward pressure of the air (membrane and vacuum pump experiment).
4. Explain Guericke's experiment.
   Explain graphically the strength of the Magdeburg hemispheres.
5. Explain the structure of the Magdeburg hemispheres.
   What were the Magdeburg hemispheres?
6. Explain Torricelli's experiment.
   Explain graphically Torricelli's experiment.
7. Explain how to measure the pressure of air.
   How did Torricelli measure nature's resistance to a vacuum?
8. Explain a barograph.
   What is a barograph?

"Give" questions

9. Give the height of the barometer ordinarily.
   Give the pressure of air under ordinary conditions.
10. Give the pressure of the air in the English system.
    Give the weight of 30 cu. in. of mercury.
11. Give the rate of decrease in the height of the barometer as one ascends from near sea level.
    Give the decrease in pressure for every 11 meters of elevation near sea level.
12. Give the effect of the buoyancy of air on a barrel of flour.
    Compare the effect of the buoyancy of air on the weight of a barrel of flour in air with that in vacuum.
13. Give the weight of one atmosphere in kilograms per square centimeter.
    Give the weight of 76 cc. of mercury in a tube.
14. Give the weight of one atmosphere in pounds per sq. in.
    Give the weight of 30 cu. in. of mercury.
15. Give the decrease in pressure in inches for every 90 feet of elevation near sea level.
    Give the rate of decrease in the height of the barometer in English units as one ascends from near sea level.

16. Give the decrease in pressure in centimeters for every eleven meters of elevation near sea level.
Give the rate of decrease in the height of barometer in French units as one ascends from near sea level.

"How" questions

17. How do we know that the pressure of the bottom of the mercury column is the same as that of the air outside.
Explain graphically how to measure the pressure of the air.
State the law showing the relation of pressure and depth.
18. How far will a suction pump raise water?
What was the limit of the suction pump to raise water as discovered by Galileo?

"Name" questions

19. Name two reasons why it is natural to expect air to exert pressure.
Why do we expect air to exert pressure?
20. Name two causes for changes in atmospheric pressure.
What causes changes in the air pressure?

"State" questions

21. State whether Galileo knew that air has weight when he discovered that a suction pump will raise water only 33 feet.
What did Galileo prove with a suction pump?
22. State the law of the lifting effect of air.
State the principle of Archimedes.

"What" questions

23. What does a falling barometer indicate?
What follows a falling barometer?
24. What does a rising barometer indicate?
What follows a rising barometer?
25. What does a steady high barometer indicate?
What follows a steady high barometer?
26. What characterizes areas of low barometer?
In what direction does the air move about a low?

"When" questions

27. When did Torricelli devise a means for measuring resistance to a vacuum?
When did Torricelli make his experiment?

"Why" questions

28. Why do we fail to notice the effect of the buoyancy of air on most objects?
Why is the loss of weight of an object due to buoyancy of the air not taken into account?

Total 57.

TYPE III ONE QUESTION IMPLIED IN ANOTHER

"Compare" questions

1. *Compare the weight of a balloon with the volume of air it displaces.

When may the buoyancy of air lift an object?

"Define" questions

2. Define a falling barometer.
   *What does a falling barometer indicate?
   (Experience shows that a "falling barometer" that is, a sudden decrease of atmospheric pressure, precedes a storm.)
3. Define a rising barometer.
   *What does a rising barometer indicate?
   (A "rising barometer," that is, an increasing pressure, indicates the approach of fair weather.)

"How" questions

4. How can we discover the downward pressure of air?
   (Two practical ways)
   *Explain how to show the pressure of air (a) with the lungs, and (b) with a vacuum pump.
5. How far did Pascal discover that mercury sank in an ascent of 1000 meters?
   What did Pascal prove about air pressure?
6. How does a barometer kept at the same elevation vary?
   *What causes changes in the air pressure at the same altitude?
7. How are weather maps prepared?
   How do areas of low barometer usually move?
   How may we predict the weather?
   How is the direction of the wind indicated on a weather map?
   *Explain a weather map.
8. How may the density of air be expressed?
   Name two usual ways of expressing the densities of gases.

"State" questions

9. State whether Galileo knew how resistance to a vacuum was measured when he discovered that a suction pump will raise water only 33 feet.
   *State whether vacua have any sucking power.
10. State whether we ordinarily think of air as having volume and weight.
    *Why do we fail to realize that air has volume and weight?
11. State whether the decrease in pressure is uniform with the increase in altitude.
    *State whether the rate of decrease in the height of the barometer decreases with increase in altitude.

"What" questions

12. What instrument is used to show the downward pressure of air?
    *Explain how to remove the upward pressure of air with a vacuum pump.
13. What was one of the most interesting of Otto von Guericke's experiments?
    *What were the Magdeburg hemispheres?

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*Question duplicated. Not counted here.

14. What apparatus did Torricelli use for measuring resistance to a vacuum?
    *Explain Torricelli's experiment.
15. What did Pascal discover when he tried Torricelli's experiment?
    *What did Pascal prove about air pressure?
16. What advantage has an aneroid over a mercury barometer?
    What size are aneroid barometers?
17. What is a second important use of the barometer?
    *What is a barometer used for?
18. What do explorers and surveyors notice on carrying a barometer up a mountain?
    *Why do mountain climbers and aeroplanists carry barometers?
19. What is meant by the lifting effect of air?
    Explain graphically the lifting effect of air?
20. What did Pascal discover when he tried Torricelli's experiment?
    What did Pascal prove about the weight of the liquid and the height in the tube?
    *What did Pascal prove about air pressure?

"Why" questions

21. Why can a balloon be lifted in air like a piece of wood in water?
    *Why do we fail to notice the buoyancy of air on most objects?
22. Who was Galileo?
    Why is Galileo called the father of modern science?
    (Picture of Galileo with inscription Galileo Galilei. Often called "The father of modern science" because he was one of the first to test his theories with experiments.)

Total 31.

TYPE IV COMPLEMENTARY QUESTIONS

"Compare" questions

1. Compare the upward pressure on the bottom of an object with the downward pressure on top of it.
   How do we know that the upward pressure of the air on the bottom of an object is more than the downward pressure on the top?

"How" questions

2. How fast can we make a liquid run into an empty bottle?
   Why do we sometimes have difficulty in pouring a liquid into a narrow-necked bottle?

"State" questions

3. State whether some broad areas of country have low barometer.
   Define a "low."
4. State whether some broad areas of country have high barometer.
   Define a "high."
5. State whether air has lifting effect on everything in it.
   Define "buoyancy of air."

6. State whether a so-called empty bottle is really empty.
   What do we mean when we speak of an empty bottle?
7. What did Pascal "reason" in 1648?
   When did Pascal perform his experiment on air pressure?

Total 14.

TYPE V DIFFERENT QUESTIONS

"Define" questions

1. Define meteorology.
2. Define aneroid.

"How" questions

3. How far does any liquid rise in an exhausted tube?
4. How did the ancients try to explain many phenomena?
5. How did Pascal and his brother-in-law feel when they discovered that mercury sank 8 cm. in an ascent of 1000 meters?

"State" questions

6. State whether many gases have densities less than that of air.
7. State whether the maximum altitude shown for an aeroplane has probably been exceeded.
8. State whether a sensitive barometer changes on being lifted from the floor.

"What" questions

9. What did Galileo leave to his friend Torricelli to do?
10. What is the most perfect vacuum that we know how to make?
11. What apparatus did Pascal use when trying Torricelli's experiment?

"Where" questions

12. Where did Pascal's brother-in-law try his experiment on air pressure?

"Who" questions

13. Who was Pascal?
14. Who was Archimedes?

"Why" questions

15. Why may we express densities in gases in the usual way?
16. Why did Pascal enlist the help of his brother-in-law?
17. Why is the rate of decrease in pressure less in high altitudes?

Total 17.

The summary of agreement for the other two pairs of judges were obtained in a similar manner. Table VII shows the final summary for all of the judges in Physics.

In some ways the foregoing measures of agreement or reliability are somewhat unsatisfactory. The author has no rigid proof of its rigidity or of its value in comparison with other methods. The results are also open to question because of the limited portions of subject matter which the questions cover—six pages in English, eleven

TABLE VI

SUMMARY OF AGREEMENT FOR JUDGES 4 AND 8

TYPE OF QUESTION	SAME QUESTIONS SAME WORDS	SAME QUESTIONS DIFFERENT WORDS	ONE IMPLIED IN ANOTHER	COMPLEMENTARY	DIFFERENT QUESTIONS	TOTAL
Compare	0	2	1	2	0	5
Define	2	2	4	0	2	10
Explain	12	13	0	0	0	25
Give	8	16	3	0	0	27
How	2	4	6	2	3	17
Name	0	4	0	0	0	4
State	6	4	4	8	3	25
What	6	8	10	2	3	29
When	0	2	0	0	0	2
Where	0	0	0	0	1	1
Who	4	0	0	0	2	6
Why	10	2	3	0	3	18
Total	50	57	31	14	17	169

Agreement 89.9 percent.

TABLE VII

FINAL SUMMARY OF AGREEMENT IN PHYSICS

JUDGES	4	8	9
4			
8	89.9		
9	90.4	92.6	

Averages of agreement of each judge with the other two

Judges	4	8	9
Averages	90.2	91.3	91.5

pages in History and eight and one-half pages in Physics even as they are the best that are now available.

The following table shows the average number of questions asked per page in each subject.

TABLE VIII

THE NUMBER OF QUESTIONS ASKED PER PAGE.

SUBJECT	TOTAL NUMBER OF PAGES	NUMBER OF JUDGES	AVERAGE NUMBER OF QUESTIONS ASKED PER PAGE BY A SINGLE JUDGE
English	6	4	11.7
History	9	6	12.3
Physics	8½	3	10.3

The larger number of questions per page in History is due to the compactness of the subject. In English some of the space was taken up by illustrations from literature that were omitted. In physics there were pictures and descriptions of experiments that could be covered with very few questions.

Some of the readers will wonder why tests of agreement were not made on other selections taken from different places. The time element settled that. It required from two to three hours to work out the agreement on the material under consideration here. Eleven judges were involved; four in English, six in History and three in Physics. This required the working out of 24 different studies which required from 48 to 72 hours of time. The use of one more passage of the same size in each subject would have doubled the amount of time required and this amount was not available.

On the other hand there is something to be said for the percents of agreement as they now stand. They are all high. Those in English range from 82.6 to 94.3; those in History range from 87.3 to 96.4; those in Physics from 89.9 to 92.6.

Furthermore, most of these comparisons were made early in the progress of the work. Each one was reviewed in detail with the two judges who were involved. As a result of this further regulations were made which increased the agreement still more. Judges 10 and 11 came in later. They made out their questions under the new rules. Their questions agree considerably better even with the questions which the other judges made out under the old rules. It seems quite certain, therefore, that the amount of agreement on the whole study would be even higher than the percents herein listed.

HOW RELIABILITY WAS MEASURED

One question still remains to be considered. How consistent are the judges? In order to answer this question most of the assistants were asked to submit questions on the same passages again. The second lists were written from four to five months after the first lists had been handed in. The text books were not used in the meantime and it is quite reasonable to suppose that no judge remembered what she had written four or five months previously. It is obvious that the assistants who came into the work toward the last should not write the questions again. The time interval since the first checking was not sufficient. For this reason it was impossible to obtain percents of reliability for all of the judges. Table IX shows these percents so far as they could be obtained:

TABLE IX

SUMMARY OF RELIABILITY

JUDGES	1	2	3	5	6	7	8	9
English				90.8	90.4	91.8		
Physics							94.2	98.0
History	96.7	97.1						

The percents listed in Table IX show to what extent eight of the judges were able to agree with judgments which they had made four or five months earlier on the same material. Again the percents are high. In fact, the percents of self agreement are higher than those for the agreement between two different judges. Hence the reliability of the eight judges is very high.

GENERAL SUMMARY

The purpose of this chapter was to present detailed information concerning the validity and reliability of the methods which were used. The method of work has been described. High percents of validity and reliability were obtained by carefully defining the several types of questions. These definitions were presented in detail for each subject and examples of each were given.

Measures of validity were arrived at by having all of the judges write out independently questions on the same passage. These questions were then divided into five types, namely, same questions in same words, same questions in different words, questions in which one was included by another, questions which were complementary and questions which were totally different. The sum of the number of questions listed under the first four types divided by the sum of those listed under all five types gave the percent of agreement or validity. The details of this procedure have been shown in all three subjects.

Finally the percents of self agreement have been presented as measures of reliability. The percents of validity and reliability were high in all cases.

CHAPTER V

THE MEASUREMENT OF OVERLAPPING

The several textbooks were reduced to elements as described in the preceding chapter. Each book was represented by cards classified into the same categories. It was then possible to compare the categories pair by pair and pick out and mark the questions which were common to both groups. In this way, for example, all of the questions relating to narration in the high-school English text were compared with all the cards relating to narration in the elementary school and with all of the cards relating to narration in the college text book. The result was the exact number of questions or elements that were duplicated in the elementary school and high school, and in the college and the high school. Even then one problem was met which is not ordinarily encountered in other types of investigations. This problem may be best explained by calling attention to the following data extracted from the summary in English for one state. The general topic covered in this section is that of Oral Composition.

TABLE X

SUMMARY OF OVERLAPPING IN GRAMMAR IN OKLAHOMA—ELEMENTARY AND HIGH SCHOOL

	A. Total Elementary	B. Total Secondary	D. Total Overlapping	Percent Elementary on Secondary	Percent Secondary on Elementary
1. *Parts of Speech*					
General	15	19	0	0	0
Adjectives and Adverbs	138	62	30	21.8	48.4
Connectives	56	57	2	3.6	3.5
Interjections	10	1	1	10.0	100.0
Nouns	85	2	0	0	0
Pronouns	93	69	28	30.1	40.6
Verbals	48	21	2	4.1	10.0
Verbs	116	77	18	15.5	23.4
Total	561	308	81		
2. Sentences					
Analysis of	48	12	3	6.3	25.0
Phrases	17	46	6	35.3	13.0
Clauses	16	20	8	50.0	40.0
Classification					
Form	18	49	9	50.0	16.3
Use	9	14	6	66.7	42.8
Total	108	141	32		
3. Punctuation	62	157	46	74.2	22.2
4. Spelling	0	30	0	0	0
Total	731	636	159	WM=21.7	WM=25.0

WM is a weighted mean obtained directly by dividing the sum of column D by the sum of Column A and the sum of Column B respectively.

The numbers are expressed in terms of unit questions. These questions were located by a very careful comparison of the card files for each text book category by category.

The problem which arose was how best to express this overlapping. In adjectives and adverbs, for example, the elementary field contains 138 units and the high school field contains 62 units. Thirty units are identical in each case. From the point of view of the High School, 30 out of 62 units or 48.4 percent of the work is a duplication of what the pupils have already had in the elementary school. From the point of view of the elementary school 30 out of 138 units or 21.8 percent of the material might be omitted on the ground that it is taught in high school. In the first case we have the overlapping of the high school on the elementary school in the second we have the overlapping of the elementary school on the high school. The former is more than twice as much as the latter. Situations which are exactly similar arise between the high school and the college. It is evident, therefore, that overlapping always involves two phases. It cannot be expressed by a single ratio or percent because ratios and percents are not applicable to three variables. Since there must be two percents for every case of overlapping the question arises as to which is more significant. Are we interested more in the overlapping of the high school over the elementary school or is the situation just the reverse? If overlapping is wrong which of the two kinds is the more excusable? At first sight it seems that the overlapping of the elementary school on the high school is more easily condoned because a large number of the pupils who attend the elementary school never go to high school. From that point of view the elementary school should give all of the high school content that it can. On the other hand, the elementary school has its own functions to perform and the downward pressure of secondary content is already very strong.

The overlapping of the high school on the elementary school is excusable only as review. If it can be shown that the majority of the high-school pupils do not need this review there will be no excuse for the presentation of the material in high school. In that case the high school should omit the duplicated material.

Exactly the same argument applies to the overlapping between the high school and the college. For this reason it was thought best to include both percents throughout the report. Each is carefully designated whenever it occurs.

The purpose of this chapter has been to consider the problems which are involved in measuring the amount of overlapping. It has been shown that overlapping may be considered from two points of view. For example, we may think of the overlapping of the elementary school on the high school or we may consider the overlapping of the high school on the elementary school. The same relation exists between the college and the high school.

CHAPTER VI

THE AMOUNT OF OVERLAPPING

Let us now consider the amount of overlapping that has taken place in the education of the class of 1926 as obtained by the method and under the limitations that have just been described. We shall consider here all duplication whether necessary or unnecessary as overlapping. Stated more simply we shall find how many items of subject matter the class of 1926 was called upon to learn more than once and what part the sum total of these items is of his whole course of study in English composition, physics, and United States history.

The information has been set forth in Appendix A rather than here in order to emphasize the general trend more clearly perhaps by presenting the facts in close connection with each other. All of the tables follow a single pattern consistently. Items from the elementary course of study as a whole are always presented in columns headed A. The columns headed B in like manner always show items from the high-school course of study and columns headed C always contain college material only. Columns showing the amount or number of items that are duplicated are always labeled D. In a few places items from the fifth and sixth grade are presented. These columns are headed with H. The reason for the two columns of percents has been explained in Chapter V. The columns headed D÷A show the percents of elementary school material that are presented over again in the high-school text books. The columns marked D÷C show the percents of college material which have been presented previously in the high-school text book. There are two kinds of columns which are marked D÷B. When the high school and the elementary school are being considered the columns marked D÷B show the percents of high-school material that occur in elementary text books. When the high school and the college are being compared the columns marked D÷B give the percents of high school material that are presented over again in the college text.

The classification of the material varies somewhat from one subject to another. In English composition the subject matter falls naturally into three divisions or types. The first type includes all that the author himself says about the subject. The second type covers all that the children are asked to do and the third type contains all of the illustrative material. For example, consider the topic nouns. The first type includes what the author says about them. The second type covers exercises like "Point out the nouns in such and such a sentence. The third type contains all illustrations or samples of nouns that the author uses. The tables for English composition in Appendix A are labeled Text Material, Exercises, and Illustrative Material respectively in consequence of this three-fold division. In physics and general science the foregoing three-fold division is also in evidence. In the tables, however, the text material also includes illustrative material.

The illustrative material in science is covered entirely by the pictures. The content as shown in pictures is summarized with the text material proper. The exercises in physics and general science include both laboratory exercises and problems. The latter had to be omitted because of the time pressure. The laboratory exercises are summarized in separate tables in Appendix A. The unit in these tables is the single experiment. This must be borne in mind when comparing the totals of the text material and the exercises.

In United States History the three-fold division did not appear. Some of the text books contained pictures but nothing was written about them which could be classified as illustrative material. Apparently the authors of the text books in United States History which were used in this study do not expect pupils to do anything while they are studying history. Of questions which might stimulate the thought or imagination of the pupils, there was not a trace. The aim of these authors seems to have been to tell the story. Then the pupil is supposed to sit quietly and absorb what the author has to say. Apparently the sponge and tabula rosa theories are still very much alive so far as these authors are concerned. As a result, the summaries for United States History show text material only.

A. English Composition

The line marked *Grand Total* in Appendix A, Table XX shows that in general 12.6 percent of the elementary school content in English composition is repeated in the high school, and that 20.5 percent of the high-school material has been presented previously in the elementary texts. In like manner, the line marked Grand Total in Table XXIII indicates that 9.7 percent of the high-school material is repeated in the college texts and that 11.2 percent of the college material has been given in the high-school texts. But these percents are averages and as such do not tell the whole story. The percent of duplication varies from 34.2 percent in Florida Illustrative Material (Table XX) to 7.2 percent in the Exercises for Indiana (Table XXI). It seems entirely unreasonable that it should be necessary to duplicate almost 5 times as much material in one situation as in the other. In Table XVIII, column F, we find that Indiana has more than four times as much duplication of text material than has Oklahoma. If Oklahoma can get along with 8.3 percent why does Indiana have to have 33.7 percent? Tables XVIII to XX show several other variations which are entirely too large to be explainable in any logical fashion.

In the summary of the overlapping for the college and high school (Tables XXI to XXIV) the situation is even worse. If Indiana can get along with 0.5 percent duplication (Table XXIII), why should Florida have more than forty-two times as much for the same material?

In general the relative amount of duplication between the elementary school and the high school is greater than that between the

high school and the college. One-fifth of the high-school material has been presented previously in the elementary school. About one-tenth of what is presented in the high school will be given again in college. One-eighth of the material of the elementary school is given again in high school and more than one-tenth of the college course is a repetition of material previously studied in the high school. One-sixth of the material in the intermediate grades is given over again in the grammar grades, but only 2.4 percent of the grammar grade material (Table XXIV) has been studied previously.

The high-school courses are centers of particular interest in this study because of their middle position. One-fifth of the content of these courses duplicates elementary material and one-tenth of it duplicates the college course. Apparently this leaves only 70 percent of the high-school course which belongs to it alone.

English Composition as presented in this study occupies one year of time in the high school. If there is 30 percent of duplication in the other three years also, then it follows that 1.2 years of a four-year high school course are spent in studying either what has been taught previously or what will be taught again. This seems exceedingly wasteful even though part of this is necessary review.

There will be considerable interest in a comparison of the results of this study with those of Koos.[6] Koos made a study of overlapping in connection with his plea for the establishment of Junior Colleges. He was interested only in the amount of high-school material that is duplicated in college. He expresses the duplication in terms of units of high-school material—a unit meaning a year's work by one pupil in the subject. Upon this basis he finds that 36.4 percent of the work in high-school English Composition and Literature is taught again in college. In this study data are presented for English Composition only and the percent of high-school material duplicated in college is 9.6. The difference may be accounted for in two ways. Possibly the overlapping in English Literature greatly exceeds that in English Composition and possibly Koos has not allowed sufficiently for differences in point of view. Indeed Koos makes no claim of having done this. Such allowance has been made, however, in this study. An inspection of the lists of the items of duplication in Appendix B will show rather conclusively that there is little chance for difference in point of view concerning them. All questions in which a difference in point of view is possible are omitted from the list, or broken up into more simple elements.

B. Physics and General Science

Summaries of the duplication in physics and general science in both text material and laboratory exercises are presented in Tables XXV and XXVI of Appendix A. The line marked *total* under *Text Material* in Table XXV shows that 14.4 percent of the material

[6] Koos, Leonard Vincent: *The Junior College*, Part IV, pp. 387—531.

in general science is repeated in the high school and that 5.2 percent of the high-school material has been learned previously in General Science. The range is not so great as was the case in English. In the laboratory exercises, Table XXVI, the average percent of elementary material presented in the high school is 18.7, while 9 percent of the high-school material has been presented previously in General Science. The range is again small with one exception. In the state of Virginia 56.9 percent of the general science exercises are repeated in high school and 29.3 percent of the high-school material is a repetition of what has been taught before. This condition of affairs surely merits the attention of those who are concerned with it.

The summary of the duplication of college and high-school physics in Tables XXVII and XXVIII show high percents throughout. An average of 17 percent of the secondary text material, Table XXVII, and 20.5 percent of the laboratory material, Table XXVIII, is done again in college while 10.9 percent of the college text material, Table XXVII, and 29.7 percent of the college laboratory material, Table XXVIII, is a duplication of what is taught in the high school. The range of the percents of duplication in text material is low, but the reverse is true for the laboratory material. In the right-hand column of Table XXVIII Virginia and Oklahoma each have 5½ times as much duplication as has Kansas, in laboratory exercises.

In estimating the percent of high-school material in Science that is repeated in college, Koos arrives at 9.3 percent as the proper figure. The corresponding figures in this study are 17 percent for text material and 20.5 percent for laboratory exercises, but it must be remembered that these figures apply to physics only.

C. United States History

The relative amount of duplication in United States History is shown in Tables XXIX to XXXI of Appendix A. The first line marked *total,* Table XXXI, shows that the amount of duplication between the elementary school and the high school is approximately 20 percent of the total course. This amount has relatively small variation from state to state. In the second line marked *total,* Table XXX, it appears that 22.8 percent of the high school material is being taught for the second time. The variability is again small. The third line marked *total,* Table XXXI, shows the average situation relative to duplication within the elementary school.

In Tables XXIX and XXX, the percents are of particular interest. In the high school 19.6 percent of the material has been presented previously in the elementary school and 22.8 percent of the material is presented again in college. This leaves the high school with sole claim to 57.6 percent of the material that is taught. Evidently the question of overlapping is a serious one in the high school.

Koos estimates that 20.1 percent of the high-school material in social subjects is taught again in college. The corresponding figure for United States History in this study is 22.8 percent. Here, curiously enough, a different point of view does not seem to operate at all.

A COMPARISON OF THE CONTENT OF THE SEVERAL SUBJECTS

The present study has a number of important by-products that cannot be discussed here. There is one, however, that seems important enough to be mentioned. Table XI shows the average number of units in each of the several types of text books that have featured in this study.

TABLE XI

AVERAGE NUMBER OF UNITS IN ELEMENTARY, HIGH SCHOOL AND COLLEGE TEXT BOOKS IN ENGLISH COMPOSITION, PHYSICS AND UNITED STATES HISTORY

SUBJECT	ELEMENTARY	HIGH SCHOOL	COLLEGE
English Composition	8887	5562	4787
Physics[1]	1950	5429	8516
United States History	11143	11624	31658[2]

[1] The laboratory manuals are not included.
[2] As estimated. The average in lines is 43055 and the ratio of lines to questions is 1.36 to 1.00.

The first line of Table XI shows the number of units in English Composition. It is interesting to note that this number decreases as we pass upward. The elementary texts have the most and the college texts the least. In each of the other subjects the reverse is true. The figure for Physics in the elementary school is low because Physics is only a part of the course in General Science. The high-school Physics text compares favorably with the text in high-school English Composition, but the Physics text in College has nearly twice as much material as the college text in English Composition. The amount of material in United States History is much larger than that in either English Composition or Physics. The college text in United States History seems to contain almost seven times as much material as the college text in English Composition and almost four times as much as the college text in Physics. These differences may be due in part to the difference in size of the unit question as we pass from one subject to another. Some such difference certainly exists, but it is difficult to believe that it accounts for all of this total difference. The alternative will not be pleasing to teachers of English Composition in colleges. It suggests that English Composition courses in college are of the "snap" variety. This suggestion is unfortunately strengthened by two forces that have been operating recently. One is the elimination of formal grammar from English Composition courses and the other is the drudgery of teaching English Composition in comparison to the teaching of Literature. Furthermore, English Composition has a sort of dual nature. On the one hand the ability to write a good letter and to "speak on one's feet" is important enough to rank among the tools of learning which should be mastered by everyone. As such, English Composition is an elementary subject. On the other hand, English Composition has its creative side. We should be training our future authors both in

prose and poetry. English Composition as a creative art belongs clearly in the college or as an elective. Under such an arrangement we should expect the elements in the art of writing and speaking to be mastered in the elementary school. In the high school and the college the subject would be offered as an elective for those who showed talent as authors.

But immediately an objection is raised. How can we expect to do anything like that when numbers of pupils come to college who cannot write a good English sentence, put the proper punctuation after it and begin the next sentence with a capital letter? The answer is obvious. We can't expect to do any such thing. We shall have to continue as we are until we can learn to teach the elements of English Composition in elementary school where they belong. When that happens there will be little excuse for English Composition as a required subject above the elementary school.

It is easy to defend the proposition that English Composition is very poorly taught. An inspection of the items that are duplicated in the college and the high school will give an excellent idea of how much twaddle the content of English Composition contains in the high school and the college. The content which is not duplicated is even worse. Every bit of material which has any claim to a place on the secondary college level is so technical that it is of value only in special fields, such as law, theology, and professional English. The movement to discard English grammar has taken most of the meat out of the high-school and college courses and has left the elementary school with too much grammar. As a result the elementary school does a wretched job at teaching English Composition and the high schools and colleges spend entirely too much of their time in trying to repair the damage that has been done by presenting the same material from different points of view. All three types of schools are trying to teach Elementary English and all of them are doing a poor job at it.

The situation in History is quite the opposite. History is secondary in character. The text books contain little that will rank in importance with the tools of knowledge and there are no provisions for creative activity on the part of the pupil. With this in view it seems difficult to justify the amount of factual material that our pupils are getting in United States History all through the course.

The purpose of this chapter has been to discuss the amount of duplication that exists between the courses of the elementary school, the high school and the college. The actual figures are to be found in Appendix A. The amount of duplication is considerable, particularly between the elementary school and the high school. It seems that it will be possible to save about one year in seven if the amount of duplication in other subjects is as great as it is in those which are under discussion here. Attention was also called to the unsatisfactory condition of our instruction in English Composition and to the lack of opportunity for pupil activity in our teaching of United States History.

CHAPTER VII

THE NATURE OF THE DUPLICATION

Within the limits of this volume it was impossible to include all of the items that were duplicated. In Appendix B, however, it has been possible to include one-fourth of them. In making a selection of the items which are included, preference was given to those items which were duplicated in more than one state. In long lists of items from a single state every fourth item was included.

When education is as expensive as it now is, and with a curriculum so crowded and time so precious, it is of considerable importance to scrutinize quite carefully those items which are apparently so important as to merit a repetition in our course of study. If the curriculum is well made, no item of a trivial nature should be duplicated. Reviews and repetitions are sometimes necessary, but every item which is reviewed should be worth reviewing. With this in mind, an inspection of the items in Appendix B is not reassuring. In the first place, it must be remembered that this whole study is restricted, for the most part, to those items which are expressed explicitly in the textbooks. High grade morons can memorize any of these items with little or no understanding of their meaning. But this is not true of the exercises. A pupil who performs without assistance any of the exercises in English cannot escape doing some thinking. Even in simple exercises like pointing out the nouns in a sentence or writing a business letter one must be able to identify the thing that is to be done before one can do it successfully.

The explicit statements in the textbooks under consideration here may be roughly divided into those of fact and those of thought types. An inspection of the items of duplication on pages 76 to 164 will convince anyone that factual elements play a large part. This may be necessary but many of the elements seem rather trivial in character. No effort will be made at this point to evaluate the fact material and we shall pass on immediately to the consideration of the duplication of thought material.

THOUGHT ELEMENTS THAT ARE DUPLICATED

Just what portion of the duplicated material is of the thought type? To answer this question we must identify the thought elements. Unfortunately this cannot be done accurately from the data at hand. We must not forget that it is always possible for high-grade morons to memorize thought material with little or no notion of its real meaning. The extent to which this takes place will vary from one class to another. In any given group of pupils this element could be measured rather accurately. It would also be possible to measure this variable with many groups of pupils and thus arrive at a significant measure of central tendency. This procedure, however, is be-

yond the limits of this study. For the present, therefore, we shall have to make the best estimate that we can. We shall consider the matter from two points of view. First, we shall present the amount of thought duplication that would result if *no child memorized any of the thought material.* Then we shall show the amount of this same duplication in the assumption that *every child memorizes all thought material.* This will disclose the limits between which the true amount of thought content is sure to lie. We shall refer to the measure based upon the first assumption as the less rigid and to that based upon the second as the more rigid measure.

The More Rigid Measure

At first glance it may seem that the pupils who can memorize all of the thought material of their textbooks can thereby escape thinking entirely. This is not true, however, when the textbook contains exercises. When a textbook requires a pupil to pick out the names in a given selection or to write a business letter, the pupil must do some thinking if he performs the exercises successfully without help. The more rigid measure is obtained therefore by simply counting the number of exercises that are duplicated. In English Composition between the elementary school and the high school 14 percent of the duplication as thus measured is of the thought type. Between the high school and the college the corresponding amount of thought duplication is 17 percent.

In physics and general science we cannot be sure that the exercises are true thought material because it is quite possible that many pupils follow explicitly all of the directions in their laboratory exercises without much understanding of what they are doing. The more rigid method is therefore not applicable in Physics and General Science. None of the history textbooks studied in this investigation contain exercises. Consequently, the amount of true thought material which is duplicated in history is zero according to the more rigid measure.

The Less Rigid Measure

If we assume that children in general do not memorize thought content—that they are really able to follow and understand the author's thought—the percents of thought material in the duplication are considerably higher. In English Composition the amount of duplicated thought material is 49% between the elementary school and the high school, 63% between the high school and college, 62% between the intermediate and grammar grades and 67% in all four taken together.

This looks reassuring for English composition but the situation is less than satisfactory when we examine the types of thinking that are involved. Most of the duplicated thought material consists of definitions and stating rules. Examples of each type follow:

Arrangement

Construct a paragraph according to space order.

Cause-effect

What is the effect of using too many minor details?

Characteristics
What are three sources of interest in a composition?
Comparison
Compare the simile and the metaphor.
Definitions
Define a proper noun.
Effect-cause
What are the points which arouse and maintain interest in a story?
Facts
Identification
Pick out the verb in (given) selection.
Manner
How are shall and will used to express determination?
Purpose
What is the purpose of the brief?
State requirements
What essential elements in a good description make up a substantial portion of the whole?
Stating rules
State the rule for coherence in composition.
The relative amounts of each type are shown in Table XII

TABLE XII

PERCENTS OF EACH TYPE OF THINKING IN EACH VARIETY OF DUPLICATION—ENGLISH COMPOSITION

TYPES OF THINKING	ELEMENTARY AND HIGH SCHOOL	HIGH SCHOOL AND COLLEGE	INTERMEDIATE AND GRAMMAR GRADES	ALL TAKEN TOGETHER
1. Arrangement	0	0.4	0	0
2. Cause-effect	00	1	0	0
3. Characteristics	0	1	0	0
4. Comparison	0	2	0	0
5. Definitions	15	17	28	38
6. Effect-cause	0	2	0	0
7. Facts	51	37.6	38	33
8. Identification (exercises)	14	5	17	0
9. Manner	4	11	0	4
10. Purpose	0	9	0	0
11. Stating requirements	2	4	0	0
12. Stating rules	14	10	17	25
Total	100	100.0	100	100

Such are the types of thought material which the authors of the textbooks considered important enough to be repeated once, twice, and even three times in the course of study. They may be correct in their estimate of relative importance as shown in Table XII, but

it is difficult to resist the suspicion that they haven't thought about the matter at all. Possibly they have rather thoughtlessly copied the technique of former ages of stress upon rules and definitions and have rather accidentally inserted a smattering of other types of thinking. The situation as shown in the table looks very much like a situation without design or controlling purpose. It seems difficult to defend it as a logical or psychological body of curriculum material which merits repetition as a whole.

In physics the data of this study do not yield a definite measure of the relative amount of true thought material in the laboratory exercises because the duplications of text and laboratory material are not expressed in commensurable units. It is quite possible that laboratory exercises require a considerable amount of genuine thinking when performed without assistance. Recent evidence yields possible support here.[7] We are told that pupils learn more when the teacher performs and develops the experiment for them than they do when working alone. This could easily mean that when the teacher does the thinking the morons have a chance to pass. It is a matter of regret that it was impossible to gather evidence on this important point in this study.

In the text material of physics as with English a dull pupil who can memorize the pages will stand a good chance of passing without doing any thinking of importance. But again as in English under a more lenient interpretation it is possible to count thinking with the author as a worth while thing. The authors of the text books used in this study have presented thought material of the following types:

Cause-effect
: What is the effect of cooling air below its saturation point?

Comparison
: Compare the English and metric units of measure.

Condition
: Upon what does the capacity of a condenser depend?

Definitions
: Define density

Effect-cause
: Show that the energy in coal comes from the sun.

Explanations
: Explain a Fortin barometer.

Facts

Hypothesis
: What would happen if copper sulphate replaced sulphuric acid in the dissociation experiment?

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[7] Kiebler, E. W. and Woody, Clifford. "The Individual Laboratory versus The Demonstration Method of Teaching Physics." *Journal of Educational Research,* Vol. VII (Jan. 1923) pp. 50-58.

Downing, Elliot R. "A Comparison of the Lecture—Demonstration and the Laboratory Methods of Instruction in Science." *School Review,* XXIII (November 1925) pp. 688-697.

Inference
Clothes dry after freezing. What does this prove?

Manner
How is specific gravity determined?

Proof
Prove the principle of Archimedes.

Relation
What is the relation between the hardness of steel and its magnetic retentivity?

Statement of Laws
State the law of pressure in liquids.

"Why" questions
Why is the metric system universally used in scientific work?

The enumeration of these types sounds like something valuable but the distribution of practice in each type is disappointing. Table XIII shows what this distribution is in each type of duplication.

TABLE XIII

PERCENTS OF THOUGHT AND FACT CONTENT INVOLVED IN THE MATERIAL WHICH IS TAUGHT AT LEAST TWICE IN PHYSICS AND GENERAL SCIENCE (TEXT MATERIAL ONLY)

TYPE OF THINKING	ELEMENTARY AND HIGH SCHOOL	HIGH SCHOOL AND COLLEGE	ALL COMBINED
1. Cause-effect	2	2	3
2. Comparisons	5	4	3
3. Condition	0	2	1
4. Definitions	17	12	15
5. Effect-cause	2	1	1
6. Explanations	28	27	32
7. Facts	28	31	34
8. Hypothesis	0	0.4	0
9. Inference	1	0.6	0
10. Manner	5	8	4
11. Proofs	3	1	0
12. Relation	0	1	0
13. Statements of laws	4	6	3
14. Why questions	5	4	4
Total	100	100.0	100

An inspection of the percents in the foregoing table again leaves one with the suspicion that many valuable types of thinking have gotten into physical science text books quite by accident. There seems to be no defense at all for a distribution of this sort. The lack of balance is too evident.

In United States History the condition of affairs is still worse. Table XIV shows the types of thought material and the amount of fact material that occurs under each type of duplication.

TABLE XIV

PERCENTS OF THOUGHT AND FACT CONTENT INVOLVED IN THE MATERIAL WHICH IS TAUGHT TWICE IN UNITED STATES HISTORY (TEXT MATERIAL)

TYPES OF THINKING	ELEMENTARY AND HIGH SCHOOL	HIGH SCHOOL AND COLLEGE	SIXTH AND EIGHTH GRADES
Analysis	0.2	0.0	0.0
Cause-Effect	5.8	6.6	2.8
Characterization	5.1	5.8	12.2
Comparison	1.0	1.5	0.0
Deduction	0.0	0.2	0.0
Definition	2.4	5.2	0.6
Effect-Cause	1.18	1.1	0.6
Evaluation	0.4	0.8	0.0
Fact	63.3	41.0	54.4
Hypothesis	0.2	0.0	0.0
Manner and Method	5.1	8.3	6.7
Part-Whole	0.06	0.2	0.0
Proof	0.06	0.0	
Purpose and Reason	2.4	6.2	3.8
Sequence	0.1	0.4	2.2
Summary and Description	12.7	22.7	16.7
Total	100.0	100.0	100.0

The reader who wishes to study Table XIV more in detail will be interested in the following samples of questions which exemplify each type of thinking.

Analysis

What is the essential provision of the Commission Form of Government?

Cause-effect

What was the effect of the Panic of 1873? What were the results of the Battle of Gettysburg?

Characterization

What kind of people were Andrew Jackson's predecessors?

What was the attitude of Italy toward Austria in the World War?

Comparison

Compare the resources of the South and the North at the beginning of the Civil War?

What was the most important event in Jefferson's administration?

Definition

What was the Spoils System?

What were Writs of Assistance?

Effect-cause

Give the details of the events leading to the Whiskey Rebellion.

What were the motives that caused the Pilgrims to come to America?

Evaluation

What was the significance of Roosevelt's first message to Congress?

Hypothesis

During the negotiations concerning the Panama Canal what was to happen if the United States should get control of Columbia?

Manner and Method

How was President Jefferson stirred to action by the possibility of a French Empire in America?

How did Andrew Jackson win the battle of New Orleans?

Part Whole

Of what is Panama a part?

Proof

What is the evidence that Holland wanted to secure a fort in the Connecticut Valley?

Purpose and Reason

What was the purpose of the Townshend Acts?

Why was Wild Cat Currency poor?

Sequence

Trace Hudson's third voyage.

Summary and Description

What powers did the Federalists give to the president?

Describe the battle of the Monitor and Merrimac.

Upon what principles is the government of the United States based?

A survey of the percents in Table XIII again emphasizes the lack of plan that characterizes the material which is taught twice. The percent of fact questions is large—larger, in fact, than it is in either of the other subjects. This means necessarily that the percent of of thought is correspondingly small. The most prominent type of thinking proves to be summary and description. Such important types as Analysis, Evaluation, Proof and Sequence are hardly represented at all.

The aimlessness of this duplication is further in evidence when one compares the items in Appendix B with some of the recognized aims of history teaching in general. A few years ago the author had occasion to list these aims in connection with another study.[8] The aims are as follows: (1) To discipline the memory. (2) To discipline the imagination. (3) To train the judgment. (4) To teach the nature of historical evidence and the habit of weighing it. (5) To furnish entertainment. (6) To afford practical knowledge for use in daily life. (7) As a background for literature and science. (8) To inculcate a taste for historical reading. (9) To bring about sympathy and understanding among peoples and nations. (10) To inculcate the love of truth. (11) To fit boys and girls for citizenship. (12) To teach the power to organize facts. (13) To promote scientific thinking. (14) To teach an appreciation of the past. (15) To correct superficial and prejudicial thinking. (16) To

[8] Osburn, W. J. *Are We Making Good At Teaching History?* Bloomington, Illinois: Public School Publishing Co. 1926.

emphasize cause and effect. (17) To interpret the present and judge the future in terms of the past. (18) To afford moral training.

One fourth of all the items that are duplicated may be found on pages 113 to 164, in Appendix B. The reader, if he chooses, may review these items, one by one, to ascertain its relationship to the above objectives. He will find that most of the objectives are conspicuously absent and that nearly all of the emphasis is being placed upon the discipline of the memory alone. Surely this is not intentional on the part of the authors of the text books. Apparently they have been unconsciously influenced by the discarded traditions of the past—by the idea that the only prerequisite for successful thinking is the memorization of facts. Practice in actual thinking is present only by accident even in the material that is taught twice.

In both English and physics illustrative material and exercises for the pupil were quite prominent. In history the condition is much to the contrary. The textbooks show a few illustrations in the way of pictures but there is no discussion of them in the printed material. Exercises are entirely absent not only in the duplicated material but also in the textbooks. Nothing is required of the pupil other than a patience that smacks of stupidity and a well-developed power of absorption. Surely the study of American history as disclosed in these results is a veritable moron's paradise.

The purpose of this chapter has been to examine the nature of the material that our pupils are required to study at least twice. It has been impossible to prove within the limits of this investigation just how much of the duplication is necessary but the evidence is clear in other respects. Each of the subjects contains worthwhile thought material if one is disposed to be lenient in one's interpretations. If one is otherwise disposed, it is impossible to prove rigorously the presence of any genuine thought material outside of the exercises in English and physics. Even that may be a delusion in the case of some pupils. Under a lenient evaluation the thought material that is disclosed is greatly lop-sided. In English composition from 81 percent to 92 percent of the thought material consists of exercises for the pupil such as picking out the nouns, definitions and the statement of rules. In physics and general science 56 percent to 71 percent of the thought material is devoted to explaining experiments and learning definitions. In United States History 62 percent to 77 percent of the thought material is either summarizing, characterization or manner and method. Other valuable types of thinking are either sparsely represented or entirely missing. There is a marked absence of material relating to most of the recognized objectives of history teaching.

CHAPTER VIII

THE OVERLAPPING IN EXAMINATION QUESTIONS

According to the original plan a rather extensive study of the examination questions was to have been carried on in the college and in the high school. Lack of space in this report as well as the lack of time made it necessary to abandon the plan for the most part. The following data are very scrappy. They are presented only as an indication of what might be done. All of the material relates to the duplication of college examination questions upon the contents of the physics textbook which the pupils studied when in the high school.

The results are shown in Table XV for the Physics Examinations in four universities.

TABLE XV

DUPLICATION BETWEEN COLLEGE EXAMINATION QUESTIONS IN PHYSICS AND THE CONTENT OF THE HIGH SCHOOL TEXTBOOK WHICH HAD BEEN STUDIED BY THE PUPILS

UNIVERSITIES	M	N	O
	TOTAL NUMBER OF QUESTIONS	NUMBER OF QUESTIONS COVERED BY HIGH SCHOOL TEXT	PERCENT M ÷ N
A	62	29	46.8
B	381	189	49.6
C	220	99	45.0
D	435	215	49.4
Total	1098	532	48.4

The percent of overlapping shown in Table XV seems extremely high. Almost half of the college credit which is received from final examination grades is really based on high school material. There is no objection to reviewing high-school material in the university but it does not seem justifiable to give this much university credit on such review material. There are no means of estimating what the percents of duplication would be in English or History. Let us hope that they are not as large as the percents for Physics.

CHAPTER IX

OMISSIONS IN THE COURSE OF STUDY

The question of omissions has already been touched upon in Chapter VII. It was there shown that the thought material in each of the three subjects is very lop-sided. A number of important types of thinking are present only in small amounts in the duplication. From this it is reasonable to infer that they are also of rare occurrence in the text books as a whole. Time was not available to look more carefully into this important question. A few additional points have developed, however, as by-products.

The question of omissions is a difficult one at best. The content of human knowledge is so large that comparatively few of its elements can be included in a course of study. The problem of which ones to select and which ones to reject is the essence of the curriculum question. Up to date this question has been answered in terms of consensus of opinion for the most part. Such an answer is unscientific and therefore unsatisfactory, but it is the best that we have and we shall have to get along with it until an objective criterion is discovered. In such an embarrassing situation the best that we can do is to seek some light on the situation by means of indirect approximations. The suggestions that follow are entirely of that character.

At the very outset, however, we are confronted with the troublesome question of aims. In English Composition, for example, shall we aim at the production of literary artists or shall we be satisfied with such mastery of writing and speaking as will meet the needs of the ordinary man and woman? Suppose that we line up with the present prevailing tendency and accept the second of the above aims as our guide. Such a decision will work very well in the elementary school but is it valid in college? Should not the college course aim at the production of literary artists? If not, where shall we train those who have literary talent? Then there is the question of individual differences. Is there any need for differentiation in our English courses in terms of the intelligence level of the students?

It is quite necessary to take some sort of stand on these questions before the question of omissions can be attacked in any fundamental or fruitful manner. In the suggestions that follow it is assumed that the student is of average or less than average mental ability and that he has no hopes of becoming a literary artist. For such pupils there are rather glaring omissions in the course of English Composition as it is now taught.

It must be remembered at the outset that the correct use of English is a skill, or better, a group of skills. Skills can be developed only through practice, and the duller the pupil the more practice is needed. With this in mind, let us look at the amount of practice that our mediocre pupils are getting in some of the fundamentals of English. By all odds the most poorly developed things in the whole

field of English are the habit of putting periods at the ends of declarative and imperative sentences and the habit of beginning every sentence with a capital letter. How much practice are our text books affording in these two extremely important matters? An answer to this question may be found by studying the Exercises in English Composition. Table XVI shows the number of times which a child is asked to put a period at the end of a declarative and imperative sentence by his text book.

TABLE XVI

THE NUMBER OF TIMES THAT A PUPIL IS ASKED TO PUT A PERIOD AT THE END OF A SENTENCE

STATE	ELEMENTARY SCHOOL		HIGH SCHOOL		COLLEGE		TOTAL	
	I	II	I	II	I	II	I	II
	NUMBER OF LESSONS	TOTAL FREQUENCY						
Indiana	7	57	3	55	0	0	10	112
West Virginia	7	33	0	0	0	0	7	33
Oklahoma	3	24	6	103	0	0	9	127
Florida	0	0	3	16	1	16	4	32

TABLE XVII

THE NUMBER OF TIMES THAT A PUPIL IS ASKED TO BEGIN A SENTENCE WITH A CAPITAL LETTER

STATE	ELEMENTARY SCHOOL		HIGH SCHOOL		COLLEGE		TOTAL	
	I	II	I	II	I	II	I	II
Indiana	8	71	1	35	0	0	9	106
West Virginia	8	29	0	0	0	0	8	29
Oklahoma	2	40	2	25	0	0	4	65
Florida	1	5	0	0	1	9	2	14

In Table XVI the columns headed I show the number of lessons and the columns headed II show the number of practices. All of the numbers are small. Some of them exceedingly so. The class of 1926 in Florida was not required by its textbook to put a period at the end of a sentence at any time in the elementary school. In the high school the class had sixteen practices in three different lessons. In college it got sixteen practices in one lesson. In the other states conditions are not quite so bad but in none are they satisfactory. The situation with regard to putting capitals at the beginning of sentences is even worse. It would seem that a pupil should have practice in putting periods at the ends of declarative sentences and in beginning sentences with a capital letter at least twice a month. This would require a minimum of 136 practices in the ten years from the beginning of the third grade to the end of the ninth. This amount was not provided in any of the states so far as the text books are concerned. If the pupils who entered college in these states in 1926 are free from the run-on sentence it is because conscientious teachers took time to

supplement the text books. All of this makes one suspect that the curse of the run-on sentence is due to the fact that the pupils have not had a chance to learn the proper procedure in such cases. All of the evidence seems to favor a careful supplementation of the course of study at this point.

In physics and general science the aim is different. Here we are not so intimately concerned with skills. The dominant aim seems to be to acquaint the pupils with a number of natural laws in the hope that the application of the laws will be evident. General Science at its best has also an exploratory trend. The idea is to acquaint the pupil with the high spots of physics so that he may know what the subject is. For this purpose emphasis upon the laws of physics seems rather inadequate. The adolescent youngster cares not a straw for the molecular constitution of matter or electrical radiations, but he is deeply interested in automobiles and receiving sets. For this reason it would seem advisable to make the approach to General Science and high-school physics less abstract than it now is.

The course of study in history needs attention also. Both English and physics contain provisions of things for children to do, but when we come to history there are no such provisions. The teaching of history seems to be a pure stuffing process. The children learn facts and are indoctrinated—or is inoculated the word—with ideas and possibly ideals. All of this is defensible but somehow inadequate. History is an important subject and one cannot avoid the idea that children ought to be encouraged to do some thinking for themselves when they study it. But the authors of our text books seem opposed to such a plan. Not once in the whole study did any of the assistants report a single exercise for the pupil or a single effort to stimulate the pupils' thought. The aim of history teaching at present seems to be almost entirely the mastery and memorization of facts. Evidently we have scarcely begun thinking of a technique of history teaching that will really get at that which history has to contribute.

The purpose of this chapter has been to call attention to three places at which our curriculum material needs strengthening. Our text books in English seriously need strengthening in the amount, character and distribution of the practice which they afford on certain fundamental skills. A more practical approach is needed for General Science and high-school physics. The exploratory idea has not been as fully developed as it should be.

In history more thought material and a better technique of teaching is earnestly to be desired.

CHAPTER X

GENERAL SUMMARY AND CONCLUSIONS

Without doubt, some of the readers of this report will be disappointed to find that the question of overlapping and omission has not been settled. Such persons will probably fail to realize the complexity and magnitude of the question. As a matter of further defense it may be said that the original plan of this investigation did not include such an ultimate thing as final settlement. The plan called for the discovery of how much overlapping and omission there is and what the character of the overlapping and omission is. This plan has been carried through with considerable completeness in the case of overlapping and some data have been obtained relative to omissions. But the question of ascertaining how much of the overlapping is necessary and defensible will have to be left to future investigation.

Chapter I of this study is an introduction. In it the reader finds a discussion of the importance of the task to be undertaken and the reason for the undertaking. Chapter II presents the scope of the investigation with some consideration of certain arguments in favor of overlapping as a desirable thing. In this chapter an effort is made to define overlapping. A plan for the final solution of the whole problem is also presented together with a statement of the limitations which had to be placed upon the present study. In Chapter III the method of the investigation is presented in considerable detail because of its novel character. The method is there checked for validity and reliability, and otherwise defended. Chapter V discusses the problems that arise in measuring overlapping and the units of measure that are used. The amount of overlapping is discussed in Chapter VI. The final results are presented on pages 70 to 73. The amount of overlapping is considerable. Usually this amount is sufficient to constitute a whole year's work in from five to seven years. This gives some weight to the contention that the work of eight grades can be done in seven. In Chapter VII the nature of the duplication is considered. It is there shown that a large amount of the duplication is factual in character. Furthermore, the emphasis on the thought material is very poorly distributed among several types of thinking. These data are an effective refutation of the argument that the duplicated material is purposely repeated in connection with a definite plan. Everything indicates that the character of the duplication is determined by unconscious biases in the minds of the authors of the text books—biases which have been a part of our social inheritance from bygone ages. The newer objectives of history are scarcely represented at all in the parts of the subject that are taught twice.

In Chapter VIII some meager data are presented concerning overlapping in final examination questions. The amount of the overlapping in physics proved very large. Further study of this

question seems amply worth while. Chapter IX presents limited data concerning omissions. The duplicated material and the text-books as wholes are apparently very short on several valuable types of thinking. Furthermore, certain fundamental skills in English composition are greatly neglected so far as the provision of practice material is concerned. On the whole, there is a substantial amount of overlapping in the course of study with which this investigation has been concerned. In all probability some of it is justifiable but the burden of proof is clearly upon the shoulders of those who defend the present status of affairs. It is difficult to see how anyone can successfully defend the present status against the charge of aimless and ill-balanced content. And since the overlapping is aimless and ill-balanced it seems probable that the text books as a whole may be open to the same criticism. All of this suggests a number of highly important problems for future investigation before our system of education can legitimately claim to be truly scientific.

APPENDIX A

A SUMMARY OF THE DUPLICATION BY STATES

I. ENGLISH

A. Elementary and High School

TABLE XVIII TEXT MATERIAL

States	A Total Number of Units in Elementary Text	B Total Number of Units in High-School Text	D Number of Units Duplicated	E Duplication Percents D ÷ A	F D ÷ B
Florida	1262	1805	142	11.2	7.8
Indiana	2872	1293	436	15.2	33.7
Oklahoma	962	2460	204	21.2	8.3
West Virginia	2173	2329	473	21.3	20.3
Total	7269	7887	1255	17.3	15.9

TABLE XIX EXERCISES

Florida	6237	2373	467	7.3	19.6
Indiana	7746	2015	561	7.2	27.8
Oklahoma	4181	3240	547	13.0	16.8
West Virginia	5735	1779	593	10.3	33.3
Total	23899	9407	2168	9.1	23.4

TABLE XX ILLUSTRATIVE MATERIAL

Florida	1690	1157	396	23.4	34.2
Indiana	1239	990	327	26.3	33.0
Oklahoma	721	957	122	16.9	12.7
West Virginia	701	1859	205	29.2	11.0
Total	4351	4963	1050	24.1	21.1
Grand Total	35519	22257	4473	12.6	20.5

B. High School and College

TABLE XXI TEXT MATERIAL

States	B Total Number of Units in Secondary Text	C Total Number of Units in College Text	D Number of Units Duplicated	E Duplication Percents D ÷ B	F D ÷ C
Florida	1805	2443	297	16.5	12.1
Indiana	1293	2733	94	7.2	3.4
Oklahoma	2460	2733	189	7.6	6.9
West Virginia	2328	4139	486	20.8	11.7
Total	7886	12048	1066	13.5	8.8

TABLE XXII EXERCISES

Florida	2376	951	195	8.2	20.5
Indiana	1994	581	54	2.7	9.2
Oklahoma	3178	581	168	5.2	28.9
West Virginia	1779	782	222	12.4	28.3
Total	9327	2895	639	6.8	22.0

TABLE XXIII ILLUSTRATIVE MATERIAL

	B	C	D	E	F
Florida	1157	1769	248	21.4	14.0
Indiana	990	632	5	0.5	0.8
Oklahoma	957	632	32	4.7	5.3
West Virginia	1859	1174	152	8.1	12.9
Total	4963	4207	437	8.8	10.4
Grand Total	22176	19150	2142	9.7	11.2

C. Intermediate and Grammar Grades

TABLE XXIV TEXT MATERIAL

States	H Total Number of Units in Intermediate Grade Text	A Total Number of Units in Grammar Grade Text	D Number of Units Duplicated	E Duplication Percents D ÷ H	F D ÷ A
Florida	697	8482	150	21.5	1.8
Indiana	1266	10591	321	25.4	3.0
West Virginia	1849	6760	158	8.5	2.3
Total	3812	25833	629	16.5	2.4

II PHYSICS AND GENERAL SCIENCE

A. Elementary and High School

TABLE XXV TEXT MATERIAL

States	A Total Number of Units in Elementary Text	B Total Number of Units in Secondary Text	D Number of Units Duplicated	E Duplication Percents D ÷ A	F D ÷ B
Arkansas	2046	5354	251	12.3	4.7
California	2046	5354	251	12.3	4.7
Florida	2046	5354	251	12.3	4.7
Kansas	2158	5807	332	15.4	5.7
Oklahoma	2162	5354	416	20.5	8.8
South Carolina	944	5803	135	14.3	2.3
Virginia	2152	5054	364	16.9	7.2
West Virginia	2046	5354	251	12.3	4.7
Total	15600	43434	2251	14.4	5.2

TABLE XXVI LABORATORY EXERCISES*

Arkansas	53	99	5.5	10.4	5.5
California	53	99	5.5	10.4	5.5
Florida	53	99	5.5	10.4	5.5
Kansas	53	96	9.2	17.3	9.6
Oklahoma	53	99	8.0	15.1	8.1
South Carolina	13	96	3.3	25.4	3.4
Virginia	51	99	29.0	56.9	29.3
West Virginia	53	99	5.5	10.4	5.5
Total	382	786	71.5	18.7	9.0

*The laboratory exercises are counted in terms of experiments.

B. High School and College

TABLE XXVII TEXT MATERIAL

States	B Total Number of Units in Secondary Text	C Total Number of Units in College Text	D Number of Units Duplicated	E Duplication Percents D ÷ B	F D ÷ C
Arkansas	5354	8487	896	16.7	10.6
California	5354	8538	904	16.9	10.5
Florida	5354	8538	904	16.9	10.5
Indiana	5354	8538	904	16.9	10.5
Kansas	5803	8538	1036	17.9	12.1
Oklahoma	5354	8487	896	16.7	10.6
South Carolina	5803	8538	1036	17.9	12.1
Virginia	5354	8487	896	16.7	10.6
West Virginia	5354	8487	896	16.7	10.6
Total	49084	76638	8368	17.0	10.9

TABLE XXVIII LABORATORY EXERCISES*

Arkansas	99	40	15	15.1	37.5
California	99	84	11	11.1	13.2
Florida	99	57	24.5	24.7	43.0
Virginia	99	64	35.2	35.6	55.0
Oklahoma	99	36	20	20.2	55.6
West Virginia	99	76	17.6	17.7	23.0
South Carolina	96	37	21.9	22.8	58.1
Kansas	96	149	16.1	16.8	10.8
Total	786	543	161.3	20.5	29.7

*The units are experiments.

III UNITED STATES HISTORY

A. Elementary and High School

TABLE XXIX TEXT MATERIAL ONLY

Areas	A Total Number of Units in Elementary Text	B Number of Units in Secondary Text	D Number of Units Duplicated	E Duplication Percents D ÷ A	F D ÷ B
Florida	13182	13370	2500	22.2	19.3
Indiana	6712	9879	1704	25.3	17.2
Minneapolis	11421	8498	2169	22.6	24.4
Oregon	11498	9879	1937	16.8	19.6
South Carolina	13182	13370	2500	22.2	19.3
Total	55995	54996	10810	19.5	19.6

B. High School and College

TABLE XXX TEXT MATERIAL ONLY

States	B Total Number of Questions in Elementary Text	C Total Number of Lines in Secondary Text	D Number of Units Duplicated (1) Questions	(2) Lines	E $D_1 \div B$	F $D_2 \div C$
Indiana	9879	39074	2232	2945	22.5	7.5
Oregon	9879	47037	2271	3185	22.9	6.7
Total	19758	86111	4503	6130	22.8	7.1

C. Intermediate and Grammar Grades

TABLE XXXI TEXT MATERIAL ONLY

	H Number of Units in Sixth Grade Text	A Number of Units in Eighth Grade Text	D Number of Units Duplicated	E D ÷ H	F D ÷ A
Oregon	1591	11498	126	7.9	1.1
South Carolina	2280	13182	281	12.3	2.1
Minneapolis	4670*	11421	383	8.1	3.3
Total	8541	36101	790	9.2	2.2

*A two-book series.

APPENDIX B

In the pages that follow a sampling is presented of those elements which are duplicated in each subject. In making this sampling preference was given to items which were duplicated in more than one state. Where this criterion was unsatisfactory every fourth item in the original list was included. It is a matter of regret that it is impossible to publish the entire list.

I ENGLISH COMPOSITION

A. ELEMENTARY AND HIGH SCHOOL

I TEXT MATERIAL

Composition

Paragraph

1. Paragraph, definition of.
2. Paragraph, method of indenting.
3. Paragraph, must contain a topic sentence either explicit or implied.
4. Paragraphs, reasons for some being shorter than others.

Sentence

1. Sentence, definition of.

Word

1. *Shall* and *will*, use of to express simple futurity.
2. *Shall* and *will*, use of to express determination.
3. Simple, definition of.

Dictionary

1. Synonym, definition of.

Types of Discourse

Description

1. Description, purpose of.
2. Description, requirements for writing.
   (a) Fundamental image.
   (b) Few characteristic details.
   (c) A proper selection of minor details.
   (d) Suitable arrangements of details.

Exposition

1. Exposition, definition of.

Narration

1. Narratives, types of.
   (a) An account of a journey, a game, a fire, etc.
   (b) Histories.
   (c) Biographies.
   (d) Short Stories.
   (e) Novels.
   (f) Anecdotes of animals, children, men, etc.
   (g) Letters.

Letter Writing

1. Letter, part of.
   (a) Heading.
   (b) Salutation.
   (c) Body.
   (d) Complimentary close.
   (e) Signature.
   (f) Address.
2. Friendly letter, correct method of folding and inserting.
3. Formal notes, person used in.

Heading.

1. Letterhead, indentation of.
2. Heading of three lines, contents of each line.
   (a) First line—Street number.
   (b) Second line—Name of city and state.
   (c) Third line—Date.

3. Heading, year to be written in full.

Address

1. Address most common terms used in.
   (a) Mr.
   (b) Mrs.
   (c) Miss
2. Address, other titles much used in.
   (a) Honorable
   (b) Reverend
   (c) Doctor
   (d) Professor
3. Address, position of other than beneath the heading.
4. Introductory address of business letter, position of.
5. Esquire, when proper to use.
6. First line of the address, position of.

Salutation

1. Salutations in letters addressed to ladies.
   (a) Madam
   (b) Dear Madam
   (c) My Dear Madam
   (d) Dear Miss Brown
2. Salutation, punctuation of.

Complimentary Close

1. Complimentary close, usual position of beginning of.

Envelope

1. Superscription, indentation.
2. Superscription, present tendency in punctuation of.
3. Superscription, position of on envelope.
4. Envelope address, usual name of.

Parts of Speech

Adjectives

1. Adjective, definition of.
2. Adjective, uses of.
   (a) Modifier of a noun.
   (b) Subjective complement of verb modifying subject.
   (c) Objective compliment of verb modifying subject.
3. Adjectives whose comparison requires inner change, examples of.
   (a) Bad.
   (b) Little.
4. Adjectives, comparison of.
   (a) more.
   (b) less.
5. Descriptive adjectives, definition of.
6. Comparison, definition of.
7. Comparison, forms of.
8. Comparison, three degrees of.
9. Comparative and superlative forms of adjectives, construction of (a) er (b) est.

Adverbs

1. Adverb, definition of.
2. Adverb, parts of speech modified by.
3. Adverbs which require inner change in forming comparative and superlative.
   (a) little
   (b) ill
   (c) well
   (d) much

4. Adverbs, formation of from adjectives.
5. Most adverbs, method of comparing.
   (More, most; less, least).
6. Some adverbs, method of comparing (change form of word).
7. Adverbs and adjectives, methods of comparison.

Connectives and Interjections

1. Conjunction, definition of.
2. Coördinating conjunction, definition of.
3. Coördinating conjunctions.
   (a) and (b) but (c) or (d) nor
4. Subordinating conjunction, definition of.
5. Subordinating conjunctions.
   (a) before
   (b) after
   (c) until
   (d) since
   (e) because
   (f) if
   (g) unless
   (h) although
   (i) that
   (j) as
6. Correlative conjunctions.
   (a) either—or (b) neither—nor
7. Interjection, definition of.
8. Preposition, definition of.

Nouns

1. Noun, definition of.
2. Noun in apposition, definition of.
3. Nouns whose plurals are formed *ves.*

leaf	knife	wolf	beef	sheaf
half	loaf	wharf	wife	thief
shelf	self	life	calf	elf

4. Nouns ending in *o*, formation of plural by adding *es.*
   buffalo motto volcano
5. Nouns which form plurals by adding *es.*
   Example: church
6. Nouns ending in *y* preceded by a consonant, formation of plural by changing *y* to *i* add *es.*
7. Proper noun, definition of.
8. Common noun, definition of.
9. Collective noun, definition of.
10. Singular noun used in plural sense (cattle).
11. Letters, figures, and signs, formation of plural.
12. Possessive form of plural nouns ending in *s*, formation of.
13. Possessive form of compound nouns, ending in *s*, formation of.
14. Joint possession, method of indicating.
15. Separate possession, method of indicating.
16. Possessive of words, rules governing formation of.
    (a) Singular words ('s).
17. Appositive, case of.
18. Masculine gender denotes what?
19. Feminine gender denotes what?
20. Neuter gender denotes what?

Pronouns

1. Pronoun, definition of.
2. Pronoun, when in first, second, third person.

3. Personal pronoun, definition of.
4. Interrogative pronoun, definition of.
5. Relative pronoun, definition of.
6. Who, which, that, when, used as relative pronouns.
7. Antecedent, definition of.

Verbs

1. Verb, definition of.
2. Verb, agreement in number with subject.
3. Verb, number of with compound subject joined or *or*, or *nor*.
4. Verb, agreement with subject in person.
5. Verb, principal parts of.
   (a) Present tense
   (b) Past tense
   (c) Past participle
6. Number of verb with singular subject joined by with, as well as, rule governing.
7. Verbs which are either transitive or intransitive.
8. Transitive verb, definition of.
9. Intransitive verb, definition of.
10. Regular verb, definition of.
11. Tenses of a verb, definition of.
12. Conjugation, definition of.
13. Voice, definition of.
14. Active voice shows what?
15. Passive voice shows what?
16. Passive voice, tenses of.
    (a) perfect (b) past perfect (c) future perfect.
17. Mood, definition of.
18. Indicative mood as the mood of fact.
19. Subjunctive mood, three uses of.
    (a) Supposition contrary to fact.
    (b) Subjunctive of wish.
    (c) Supposition of uncertainty.
20. Subjunctive mood expresses thought how?
21. Imperative mood as mood of request.
22. Collective noun as subject takes either singular or plural verb according to meaning.

Sentences

Analysis

1. Modifiers limit the meaning of subject and predicate.

Phrase

1. Infinitive phrase, definition of.

Clauses

1. Clauses which modify a substantive, name of.
2. Clauses which modify the predicate, name of.
3. Subordinate clause, another name for.
4. Noun clause, definition of.

Classification—Form

1. Simple sentence, definition of.
2. Compound sentence, definition of.
3. Complex sentence, definition of.
4. Compound sentence, consists of 2 or more independent clauses.

Use

1. Sentence, definition of.
2. Declarative sentence, definition of.

3. Exclamatory sentence, definition of.
4. Interrogative sentence, definition of.

PUNCTUATION

Punctuation, purpose of.

Apostrophe

1. Apostrophe and possessive nouns, rule governing.
2. Apostrophe with omitted letters, rule governing.
3. Formation of plurals by apostrophe, rule governing.

Capitals

1. Capitals in sentences in general, rule governing.
2. Capitals with proper names, rule governing.
3. Capitals in direct quotations, rule governing.
4. Capitals in poetry, rule governing.
5. Capitals in writing certain interjections, rule governing.
6. Capitals in writing, rule governing.
7. Capitalization of pronoun *I*, rule governing.

Colon

1. Colon with direct quotations, rule governing.
2. Colon, use of preceding list of words.

Comma

1. Comma, use of in series, rule governing.
2. Comma, use of to set off dependent clauses.
3. Comma, use of with members of compound sentence, rule governing.
4. Comma, use of with parenthetical expressions, rule governing.
   (a) Direct address.
   (b) Appositives.
   (c) Nonrestrictive phrases.
5. Comma and omission of words, rule governing use of.
6. Comma and direct quotations, rule governing use of.

Dash

1. Dash in broken thought, rule governing use of.
2. Dash instead of parenthesis, rule governing use of.

Exclamation Mark

1. Exclamation point, in sentences, rule governing.
2. Exclamation point with interjections and phrases, rule governing.

Hyphen

1. Hyphen with compound word, rule governing use of.
2. Hyphen at end of line, rule governing use of.

Interrogation Point

1. Interrogation point in sentence, rule governing.

Parenthesis and Brackets

1. Parenthesis, use of, rule governing.

Period

1. Period, use of to close declarative or imperative sentences, rule governing.
2. Period, use of to complete initials or abbreviations, rule governing.

Quotation Marks

1. Quotation marks, use of with direct quotations, rule governing.
2. Quotation marks, use of to set off title, rule governing.
3. Quotation within a quotation, punctuation of.
4. Divided quotation, rule governing use of quotation marks in.

Semicolon
1. Semicolon, use of with independent clauses, rule governing.
2. Semicolon, use of with independent clauses each already containing commas, rule governing.
3. Semicolon, use of with such abbreviations as viz, rule governing.
4. Semicolon with compound sentence, rule governing use of.
   (a) Long clauses in series.
   (b) Omission of connectives.

II EXERCISES

Composition—General

Paragraphs, writing of.

Paragraph
1. Finding topics of.

Whole Composition
1. Writing themes.

Word
1. Use of Dictionary.
   (a) Looking up word meaning in the dictionary.

Types of Discourse

1. Oral reports.
2. Writing descriptions.
3. Giving talks (exposition).
4. Telling stories.

Exposition
1. Writing expositions.

Narration
1 Narratives, writing of.

Letter Writing
1. Writing of letters.
2. Form of.
3. Salutation, writing of.
4. Complimentary close, writing of.

Grammar

Parts of speech, identification of.

Adjectives
1. Making list of adjectives.
2. Comparison of adjectives.

Adverbs
1. Comparison of.
2. Identification of.
3. Use of in sentences.

Connectives
1. Use of correlatives.

Nouns
1. Picking out different kinds.
2. Use of in sentences.
3. Plurals of.

Pronouns
1. Use of in sentences.
2. Use of demonstrative and indefinite pronouns.

Verbs
1. Need for in sentence.
2. Use of correct forms.
(Verbs involved—blow, make, go, come, run, love, play, be, swim, take, grow, drink, flee, fly, choose, lie, lay, eat, ride, sit, set, bid, leave and lose.)
3. Naming tenses of.
4. Naming voices of.
5. Using correct number forms.
6. Naming mood of.

SENTENCES

1. Parts of.
2. Form—identifying kinds (simple, compound and complex).
3. Analysis, naming modifiers in (words, phrases and clauses).

Phrases
1. Naming kinds of.

Clauses
1. Identifying independent.

PUNCTUATION

1. Punctuating and capitalizing selections.

III ILLUSTRATIVE MATERIAL

COMPOSITION

Word—Literary Usage
1. The use of *shall*.

TYPES OF DISCOURSE

Letter Writing—general
1. Model forms of letters.

Heading
1. Samples of incorrect.

GRAMMAR

Parts of Speech

Adjective
1. Comparison of.

Adverb
1. Adverbs, use of.

Conjunctions
1. Use of.

Prepositions
1. Use of (at, into).

Interjections
1. Use of.

Nouns
1. Formation of plurals.
2. Use of.
3. Gender, how indicated in.
4. Kinds of.

Pronouns
1. Use of various kinds (intensive, demonstrative, indefinite, relative, interrogative).

2. Agreement with antecedent.
3. Compound personal, use of.

Verbals
1. Uses of the gerund as adjective.
2. Infinitives of transitive verbs.

Verbs
1. Transitive and intransitive.
2. Tense, forms of.
3. Principal, parts of.
4. Agreement with subjects in number.
5. Mood of.
6. Active and passive voice.

SENTENCES—PARTS OF

Modifiers in.

Clause
1. Use of.

Classification—form
1. Kinds of (simple, complex, compound).

Use
1. Use—sample of each type.

PUNCTUATION

Apostrophe
1. Uses of.

Capitals
1. Rules for (diety, quotation, proper nouns, titles, interjections).

Colon
1. Uses of.

Dash
1. Used to indicate a break in thought.

Quotation Marks
1. Use of.

Semicolon
1. Uses of.

B. COMPOSITION IN HIGH SCHOOL AND COLLEGE

I TEXT MATERIAL

COMPOSITION

Whole Composition
1. Unity in a composition, definition of.
2. Unity, requirements of.
3. Coherence in a composition, definition of.
4. Coherence, method of maintaining when a change of time occurs.

Paragraph
1. Topic statement, definition of.
2. Topic statement, usual position of. (beginning).
3. Topic statement, occasional position of. (end).
4. Paragraph development, methods of.
   (a) details
   (b) specific instances
   (c) comparison and contrast
   (d) cause and effect

5. Meaning of a topic statement, method of making clearer by use of.
   (a) Specific instances.
   (b) Comparison or contrast.
   (c) Cause and effect.
   (d) Details.
6. Repetition, use of to explain the meaning of a sentence.
7. Coherence in paragraph, method of securing. (Details in correct order).
8. Properly constructed paragraph, what it must center about; i.e. topic sentence.
9. Paragraph, first step in preparation to write. (Selection of topic sentence).
10. Paragraph, most *emphatic* positions in.
    (a) end (b) beginning
11. Material gathered from language, when it becomes material for purposes of composition. (Not until ideas came from the writers).

Sentence

General

1. Sentence, correct definition of: core words of.
2. Loose sentence, definition of.
3. Periodic sentence, definition of.
4. Conjunction *moreover*, as an aid in giving coherence.
5. *Coherence* in composition, secured by use of demonstrative adjectives.

Unity

1. Unity in sentence, definition of.

Coherence

1. Coherent sentence, definition of.
2. Coherence in sentence.
   (a) Destroyed by careless use of connectives.
3. Coherence, requirements of by the parts of the sentence.

Emphasis

1. Emphasis in sentence, methods of securing.
   (a) Words in conspicuous places.
   (b) Use of climax.
   (c) Balanced sentences.
   (d) Periodic sentences.
   (e) Repetition.
   (f) Use of variety.
   (g) Subordination.
   (h) Proportion.
   (i) Mechanical devices (italics).
2. Part of sentence, method of making emphatic. (Out of usual order).

Word—General Usage

1. General word, definition of.
2. Specific word, definition of.
3. Colloquial word, definition of.

Literary Usage—Figures of Speech

1. Simile and metaphor, comparison of.
2. Figure of speech, definition of.
3. Simile, definition of.
4. Metaphor, definition of.
5. Personification, definition of.
6. Metonymy, definition of.
7. Figures of speech, *use* as method of improving. (makes clearer)
8. Figures of speech, type to be avoided. (Hackneyed)

Dictionary

1. Hyphen, method of indicating in the standard dictionary.
2. Synonyms, selection of by a careful writer. (Choose words known to reader).

Types of Discourse

Argument—general

1. Argument, methods of developing.
   (a) Specific instances.
   (b) Cause and effect.

Organization—Brief

1. Brief, purpose of.
   (a) Definition of terms.
   (b) Determination of issues.

Issues

1. Issues, proper time of selection.

Proposition

1. Proposition, definition of.

Description—General

1. Description, elements which it should have.
   (a) Fundamental image.
   (b) Point of view.
   (c) A few characteristic details.
2. Paragraphs of description, construction of according to space order.
3. Description, purpose of.
4. Description of both outside and inside of house requires change of point of view.
5. Description of both outside and inside of house requires making change evident to reader.
6. Details which should be made prominent, type of. (Make object stand out as specific).
7. Minor details, effect of using too many.
8. Details, what determines order in which they are to be related. (Position in space).

Exposition

1. Expository writing, methods of developing.
   (a) Details.
   (b) Examples.
   (c) Comparison and contrast.
2. Development of exposition, examples as an aid in.
3. Outline, value of in writing.
4. Details, arrangement of in expository writing.
5. Completed outline, purpose of.

Narration

1. Narration, definition of.
2. Points which arouse and maintain interest in a story.
   (a) Begin action.
   (b) Incentive moment.
   (c) Climax
   (d) End
3. Commonplace occurrences, method of making interesting. (Lead up to climax)
4. Introduction of a narrative, what it should tell.
   (a) time.
   (b) place.
   (c) characters.
5. Details in a narrative which should be included.
6. Incidents in a narrative, determination of order of. (time order)

Information Narration—Types
1. Opening paragraph of a newspaper story, contents of.

Elements—General
1. Three sources of interest in order of importance.
   (a) Plot
   (b) Characters
   (c) Setting

Setting
1. Setting, definition of.
2. Elements which setting includes.
   (a) Immediate background of any particular incident.
   (b) Social environment.

Letter Writing
1. Letter heading, contents of if there are three lines.
   (a) In first line.
   (b) In second line.
   (c) In third line.
2. Lines in heading, indentation of.

Salutation
1. Salutation, distance from left margin.

Grammar

Parts of Speech

Adjectives
1. Adjective, definition of.

Adverb
1. Adverb, definition of.
2. Adverbs, words modified by.
   (a) Adjective
   (b) Verb
   (c) Adverb.
   (d) Group of words.

Informational Narration—Types
1. Opening paragraph of a newspaper story, contents of.

Connectives
1. Preposition, definition of.
2. Conjunction, definition of.
3. Interjection, definition of.
4. Coördinate conjunction, definition of.
5. Subordinate conjunction, definition of.
6. Correlative conjunction, definition of.
   (a) both—and
   (b) not only—but also.
   (c) either—or.
   (d) neither—nor.
   (e) so—as.
7. Coördinate conjunctions.
   (a) and
   (b) but
   (c) or
   (d) nor
   (e) for
   (f) neither

8. Adverbs used as coördinate conjunctions.
   (a) hence
   (b) however
   (c) moreover
   (d) besides
   (e) furthermore
   (f) then
   (g) nevertheless
   (h) still
   (i) so
   (j) accordingly
   (k) thus
   (l) yet

Nouns

1. Noun, definition of.
2. Proper noun, definition of.
3. Common noun, definition of.
4. Possessive singular of nouns, rule governing formation of.
5. Possession of plural nouns in *s*, rule governing formation of.
6. Noun in nominative cases, uses of.
   (a) Subject.
   (b) Nominative of address.
7. Noun in objective case, uses of.
   (a) Direct object.

Pronouns

1. Pronoun, definition.
2. Relative pronoun, definition of.
3. Antecedent, definition of.
4. Relative pronoun and its antecedent, points of agreement between.
   (a) Person.
5. Accusative case, use of.
   (a) Direct object.
   (b) Subject of the infinitive.
   (c) Accusative with a preposition.
6. Accusative case, uses of.
   (a) Direct object.
   (b) Subject of the infinitive.
   (c) Accusative with a preposition.
7. Pronoun, agreement of with antecedent.
   (a) Gender
   (b) Number
8. Pronoun, rule governing agreement with antecedent in case.
9. Antecedent to which a pronoun refers, requirement of.
   (Explicit, not implied).
10. Demonstrative pronouns.
    (a) this
    (b) these
    (c) that
    (d) those
11. Relative pronouns.
    (a) who
    (b) which
    (c) what
    (d) that
12. Indefinite pronouns.
    (a) One

Verbals

1. Infinitive, uses of.
   (a) Verb
2. Participle, use of as adjective or verb.
3. Present active participle used as an adjective, characteristics of.

Verbs

1. Verb, definition of.
2. Transitive verb, definition of.
3. Intransitive verb, definition of.
4. Indicative mode, definition of.

5. Imperative mode, definition of.
6. Subjunctive mode, definition of.
7. Agreement between verb and subject, rule governing.
8. Verbs, modes of.
   (a) Indicative.
   (b) Subjunctive.
   (c) Imperative.
9. Verb, principal parts of.
   (a) Present tense.
   (b) Past tense.
   (c) Past participle.
10. Number of verb with words joined to subject by *with, together with, as well as,* etc.
11. Verb, when in active voice.
12. Verb, when in passive voice.

Sentences

Analysis

Form

1. Simple sentence, definition of.
2. Complex sentence, definition of.
3. Compound sentence, definition of.
4. Compound-complex sentence, definition of.

Punctuation

Apostrophe

1. Apostrophe, general uses of.
   (a) In contractions.
   (b) Possessive genitives.
   (c) Plurals of letters and figures.

Capitals

1. Capitals in sentences, rule governing use of.
2. Capitals in poetry, rule governing use of.
3. Capitals with proper names, rule governing use of.
4. Capitals in interjections and pronouns, rule governing use of.
5. Capitals in direct quotations, rule governing use of.
6. Capitals in titles of books, rule governing use of.

Colon

1. Colon, uses of with anticipatory expressions.
   (a) Before specific instances or examples.
   (b) Between formal introduction to quoted matter and the quotation.

Comma

1. Comma for series, rule governing use of.
2. Comma with introductory and parenthetical expressions, rule governing use of.
3. Comma, with phrases; rule governing use of.
4. Comma with short quotations, rule governing use of.
5. Comma to indicate omissions, rule governing use of.

Dash

1. Dash for break in thought, rule governing use of.
2. Dash to set off parenthetical expressions, rule governing use of.

Exclamation Point

1. Exclamation point, rule governing use of.

Period

1. Period with abbreviations, rule governing use of.
2. Period with declarative sentences, rule governing use of.
3. Period with imperative sentences, rule governing use of.

Quotation Marks
1. Quotation marks with a quotation within a quotation, rule governing use of.
2. Quotation marks with titles of books, use of.

Semicolon
1. Use of semicolon between independent clauses, rule governing.
2. Use of semicolon with a clause which requires a comma, rule governing.

Spelling
1. Correct spelling, rule for learning.

II EXERCISES

Composition

Whole
1. Writing on topics in which you are interested.

Sentences
1. Revision of for coherence.
2. Revision of for emphasis.
3. Revision of for unity.
4. Re-written to secure improvement.

Literary Usage
1. Evaluating figures of speech.

Types of Discourse

Argumentation
1. Writing of brief.
2. Writing of argument.

Description
1. Writing of.

Exposition
1. Writing of.

Narration
1. Writing of.

Grammar

Parts of Speech

Pronouns
1. Correct use of.

Sentences

1. Form—telling kind of sentences.

III ILLUSTRATIVE MATERIAL

Composition

Sentences
1. Climax in.
2. Loose sentence.
3. Periodic sentence.
4. Balanced sentence.
5. Emphasis, methods of securing.

Word—Figures of Speech
1. Simile.
2. Metaphor.

GRAMMAR

Parts of Speech

Adjectives
1. Use of pronominal adjectives.
2. Appositives.

Nouns
1. Possessives.
2. Appositives.

Pronouns
1. As subject of an infinitive.

Verbals
1. Use of the infinitive.
2. Uses of the gerund.
3. Uses of the participle.

Verbs
1. Voice of.
2. Mood of.
3. Agreement with subject.
4. Sequence of tenses.

Sentences

Clauses
1. Kinds of.

Classification—Form
1. Kinds of sentences. (Simple, compound, complex).

PUNCTUATION

Apostrophe
1. Uses of. (Possession, plural, elision, etc.)

Capitals
1. Use of. (Direct quotations, proper names, titles, Diety, formal bodies and societies).

Comma
1. Uses of. (After subject clause with explanatory material, appositives, address, absolute use of terminal expressions, dependent clauses in a series, independent phrases, words in series to show omissions, non-restrictive elements, parenthetical adverb, direct quotations).

Dash
1. Uses of. (Parenthetical material, fragmentary material).

Explanation Point
1. Use of. (After exclamatory statement).

Quotation Marks
1. Uses of single and double.

Semicolon
1. Uses of. (Series and compound sentences).

C GRADES SIX AND EIGHT

I TEXT MATERIAL

COMPOSITION

Paragraph
1. Paragraph, definition of.
2. Paragraph, method of indenting.

Sentence

1. Sentence, definition of.

Word

1. Words that sound alike, but differ in meaning.

Letter Writing

Heading

1. Heading, definition of.

Address

Address, most common terms used in.
(a) Mr. (b) Mrs. (c) Miss

Salutation

1. Salutation, definition of.

Signature

1. Signature, definition of.
2. Signature, of name in full when required.

Envelope

1. Superscription consists of name and address.

GRAMMAR

Parts of Speech

Adjectives

1. Adjective, definition of.
2. Adjectives, comparison of with more and most.
3. Indefinite articles.

Adverbs

1. Adverb, definition of.
2. Adverb, parts of speech modified by.

Connectives and Interjections

1. Conjunction, definition of.
2. Coördinating conjunctions.
   (a) and (b) but (c) or (d) nor
3. Interjection, definition of.
4. Common interjections.
   (a) Ah (b) Alas

Nouns

1. Noun, definition of.
2. Nouns whose plurals are formed *ves.*

leaf	knife	wolf	beef	sheaf
half	loaf	wharf	wife	thief
shelf	self	life	calf	elf

3. Nouns forming plural by changing the vowel.

man	foot	mouth	tooth
woman	goose	louse	

4. Nouns which form plurals by adding *es.*
   church.
5. Nouns ending in y preceded by a consonant, form plural by changing *y* to *i* add *es.*
6. Nouns, plural of, rule governing.
   Add *s* to singular.
7. Proper noun, definition of.
8. Common noun, definition of.
9. Singular number denotes what?

10. Plural number denotes what?
11. Possessive case, formation of.
12. Possessive form of plural nouns ending in *s*, formation of.

Pronouns

1. Pronoun, definition of.
2. Pronoun, when in first, second, third person.
3. Relative pronoun, definition of.
4. Pronouns in objective case, samples of.
5. Pronouns in nominative case, samples of.
6. Antecedent, definition of.

Verbs

1. Transitive verb, definition of.
2. Intransitive verb, definition of.
3. Verb, definition of.

SENTENCES

Analysis

1. Subject, definition of.
2. Predicate, definition of.
3. Direct object, definition of.

Phrase

1. Independent clause, definition of.
2. Dependent clause, definition of.
3. Adverbial clause, definition of.
4. Clause, definition of.
5. Adjective clause, definition of.

Classification

Form

1. Simple sentence, definition of.
2. Compound sentence, definition of.
3. Complex sentence, definition of.

Use

1. Declarative sentence, definition of.
2. Exclamatory sentence, definition of.
3. Imperative sentence, definition of.
4. Interrogative sentence, definition of.

PUNCTUATION

Apostrophe and

1. Apostrophe and possessive nouns, rule governing.

Capitals

1. Capitals in sentences in general, rule governing.
2. Capitals with proper names, rule governing.
3. Capitals in direct quotations, rule governing.
4. Capitals in poetry, rule governing.
5. Capitals in writing certain interjections, rule governing.
6. Capitals in writing titles, rule governing.
7. First and last words in title of a book, song, poem, etc.

Comma

1. Comma, use of in series, rule governing.
2. Comma, use of with members of compound sentence, rule governing.
3. Comma, use of with parenthetical expressions, rule governing.
   (a) direct address.
4. Comma and direct quotations, rule governing use of.

Exclamation Mark
1. Exclamation point, in sentences, rule governing.

Hyphen
1. Hyphen with compound word, rule governing use of.
2. Hyphen at end of line, rule governing use of.

Interrogation Point.
1. Interrogation point in sentence, rule governing.

Period
1. Period, use of to close declarative or imperative sentence, rule governing
2. Period, use of to complete initials or abbreviations, rule governing.

Quotation Marks
1. Quotation marks, use of with direct quotations, rule governing.
2. Quotation within a quotation, punctuation of.
3. Divided quotation, rule governing use of quotation marks in.

Semicolon
1. Semicolon with compound sentence, rule governing use of.
   (a) Long clauses in series.

II EXERCISES

Composition

Written
1. Words—meaning.
   (1) Use of dictionary.
      (a) Pronounce given words with diacritical mark.
      (b) Find synonyms for 10 given words.

Types of Discourse
1. Description.
   (1) Describe a flag.

Letter Writing
1. Illustrate a friendship letter.
2. Write three headings; three salutations.

Grammar

Parts of Speech
1. General.
   (1) Given a sentence, tell what part of speech each word is.
2. Connecting word and interjections.
   (1) Conjunctions.
      (a) Given two sentences combine them into one; tell use of *and*.
3. Adjectives.
   (1) Compare given adjectives.
4. Nouns.
   (1) Tell why in making given words plural we add *es* instead of *s*.
5. Verbs.
   (1) Given sentence, tell whether verb is transitive or intransitive.
   (2) Given sentences, tell whether verb form donated present or past time.

Sentences
1. Analysis.
   (1) Parts of.
      (a) Given sentences, select complements in sentences.
   (2) Phrases
      (a) Given sentences, select all the phrases and tell what they modify.

(3) Clauses.
(a) Given sentences; point out clauses in sentences and tell which each modify.

Punctuation
1. Capital letters.
(1) Capitalize paragraphs given.

III ILLUSTRATIVE MATERIAL

Grammar

Parts of Speech
1. Adjectives.
Illustrate use of comparative form.
2. Conjunctions.
Illustrate different ways of connecting two sentences.
3. Nouns.
Give three illustrations of common nouns.
Illustrate forming plural of nouns ending in s, x, z, sh, or soft ch.
Illustrate forming plural of proper nouns regularly.
4. Verbs.
Illustrate regular verbs.

Sentences
1. Analysis
(1) Parts of.
(a) Illustrate modifiers of subject and predicate.
(2) Phrases.
(a) Given sentences illustrating an adjective phrase.
(3) Clauses.
(a) Illustrate clauses used as adjectives.
2. Classification.
(1) Use.
(a) Illustrate an imperative structure.
(b) Illustrate a declarative sentence.
(c) Illustrate an interrogative sentence.
(2) Form.
(a) Illustrate complex sentence.
(b) Illustrate compound sentence.

Punctuation
1. Comma.
(1) Illustrate use of comma.
(2) Illustrate use of comma with divided quotation.
(3) Give two sentences illustrating use of comma to separate term of address from rest of sentence.
2. Period.
(1) Illustrate use of period.
3. Apostrophe.
(1) Illustrate formation of possessive plural of words.
4. Dash.
(1) Illustrate use of dash.
5. Semicolon.
(1) Illustrate use of semicolon.

D. ITEMS WHICH ARE TAUGHT IN THE ELEMENTARY SCHOOL, THE HIGH SCHOOL AND THE COLLEGE IN AT LEAST ONE STATE

Define an adverb.
Define case.
Define auxiliary verbs.

Define copulative verb.
Define simple sentence.
Define a paragraph.
Define simple sentence.
Define complete predicate.
Define clause.
Give 3 interrogative pronouns.
Give rule for capitals in direct quotations.
Give rule regarding use of *comma* in series.
Give rule regarding *dash* instead of parenthesis.
Give rule regarding *question mark* (?) in sentence.
Give rule regarding *semicolon* with independent clauses, each already containing comma.
Give rule regarding double quotation marks.
How many objects are indicated by singular noun?
How should *shall* and *will* be used in questions?
Name the three primary tenses.
Name six relative pronouns.
What does the positive form of adjectives indicate?
What questions do adverbs of time answer?
What word is called the sign of infinitive?
What natures may the participle partake of the verb?

II. PHYSICS

A. ELEMENTARY SCHOOL AND HIGH SCHOOL

I. TEXT MATERIAL

Units of Measure

1. Explanation of standard meter.
2. Number of inches in a meter.
3. Number of cubic centimeters in a liter.
4. Number of pounds in a standard kilogram.
5. Relation between English and metric units.
6. Reason metric system is used universally for scientific work.
7. What the yard originally represented.

Mechanics of Liquids and Gases

1. Comparison between vacuum produced by pump and that in top of barometer tube.
2. Definition of density.
3. Definition of barograph.
4. Density of water in the C. G. S. system.
5. Densities of 13 solids.
6. Densities of three liquids.
7. Explanation of Torricelli's experiment.
8. Explanation of the Fortin barometer.
9. Explanation of the aneroid barometer.
10. Explanation of how to find specific gravity by loss of weight method.
11. Explanation of character and extent of atmosphere.
12. Infallibility of barometer as weather prophet.
13. Inconvenience of carrying ordinary barometer.
14. Kind of barometer used by aviators.
15. Pressure of 1 atmosphere.
16. Proof of Archimedes' principle.
17. Proof that air has weight.
18. Proof that air exerts pressure.
19. Phenomenon showing loss of weight in water.
20. Statement of law of pressure.
21. Statement of Pascal's "conclusions."
22. Statement of law of force on piston of hydraulic press.
23. Statement of Archimedes' principle.
24. Statement of the perceptibility of air.
25. Statement as to whether air can be handled.
26. Statement on incompressibility of liquids.
27. Stone, state whether it feels heavier on emerging from water.
28. Specific gravity of solids, state method for determining.
29. Torricelli's argument about the rise of water.
30. Time Torricelli performed his famous experiment.
31. Use of pressure gauge.
32. Use of the hydraulic press.
33. Weight of liter of air at freezing temperature and atmospheric pressure.
34. Way of proving that air has expansibility.
35. Definition of caisson.
36. Explanation of siphon.
37. Explanation of air pump.
38. Explanation of compression pump.
39. Explanation of lift pump.
40. Explanation of use of caisson.
41. Explanation of balloon.
42. Explanation of submarine.
43. Explanation of diving bell.

44. Height to which water can be raised by lift pump.
45. Industrial uses of compressed air.
46. Reason why a siphon ceases to act at times.
47. Use of the siphon.

Properties of Matter

1. Comparison between diameters of gas molecules and their distances apart.
2. Definition of molecules.
3. Definition of diffusion.
4. Definition of cohesive forces.
5. Definition of adhesive forces.
6. Definition of capillarity.
7. Explanation of Boyle's law by the kinetic theory of gases.
8. Explanation of diffusion of liquids.
9. Explanation of diffusion of gas through porous walls.
10. Explanation of cohesion of water.
11. Explanation of rise of liquids in capillary tubes.
12. Illustration of two substances apparently occupying the same space at the same time.
13. Statement as to whether space exists between molecules.
14. Statement as to whether velocity of gas molecules is great.
15. Statement as to whether a molecule of a solid ever breaks away.
16. Statement as to what happens when air is partly removed from a bell jar.
17. Statement of explanation of the above.
18. Statement of the most striking property of gases.
19. Statement of the kind of pressure exerted against the walls of a vessel containing gas.
20. Statement of what happens when a layer of lead is placed on a layer of gold.
21. Why it is now assumed that all substances are composed of molecules.
22. Definition of inertia.
23. Definition of centrifugal force.
24. Comparison of rolling with sliding friction.
25. Definition of the pitch of a screw.
26. Definition of power.
27. Definition of friction.
28. Definition of work.
29. Definition of a foot pound.
30. Definition of potential energy.
31. Definition of kinetic energy
32. Explanation of a single fixed pulley.
33. Explanation of a lever.
34. Explanation of the wheel and axle.
35. Explanation of the inclined plane.
36. Explanation of the screw.
37. Explanation of the principle of the three classes of levers.
38. Friction, what does it cause on every actual machine.
39. Law of the mechanical advantage of the inclined plane.
40. Power of an average horse according to Watt.
41. Windlass, graphical explanation of use of.
42. Work, what is measured in terms of.
43. Watt eqúivalent of the horse power.
44. Who James Watt was.

Thermometry

1. Accuracy of sensory measurement of temperature.
2. Boiling point on the Fahrenheit thermometer.
3. Boiling point of mercury Centigrade.
4. Comparison of Centigrade and Fahrenheit thermometers.
5. Comparison of five Centigrade degrees with nine Fahrenheit degrees.
6. Definition of high temperature.

7. Definition of low temperature.
8. Definition of a thermometer.
9. Explanation of Galileo's thermometer.
10. Explanation of changing Centigrade to Fahrenheit.
11. Explanation of making a mercury thermometer.
12. Freezing point on a Fahrenheit thermometer.
13. Freezing point of a mercury Centigrade thermometer.
14. Fahrenheit thermometer scale is divided.
15. Principle underlying the operation of the thermometer.
16. Reason Galileo used gas as an expansion medium in his thermometer.
17. Statement of the equation for changing Centigrade to Fahrenheit.
18. Where Centigrade thermometers are used almost exclusively.
19. Who devised the Fahrenheit scale.
20. Explanation of the principle of the thermostat.
21. Explanation of the illustration of the expansion of solids with a rise of temperature.

Mechanical Equivalent of Heat.

1. Compare the energy received by the earth from the sun with the total given out.
2. Definition of a calorie.
3. Rate at which the earth receives energy from the sun.
4. Relative amount of the sun's energy stored up in animal life, etc.
5. Results of analyzing the energies at man's disposal.
6. Statement of the principle of the conservation of energy.
7. Tracing of energy of coal to the sun.
8. Ultimate source of all energy.
9. What is found in all devices for transforming work.

Calorimetry

1. Statement as to whether same amount of heat produces same result in different substances.
2. Convection currents using candle in chimney illustration.
3. Comparison of metallic with non-metallic substances as to heat conduction.
4. Definition of convection.
5. Definition of winds.
6. Explanation of convection currents.
7. Explanation of hot air heating plant.
8. Explanation of the principle of hot water heating.
9. Explanation of a system of hot water heating.
10. Metallic objects, why they give a sensation of cold.
11. Poor conductors, name six for heat.
12. Ventilation in houses heated by stoves or fireplaces.
13. Wood and paper objects, why do they not give sensation of cold.

Fusion

1. Amount one cubic foot of water expands in freezing.
2. Compare the temperature inland with that near large lakes.
3. Definition of a refrigerator.
4. Effect on animal life of expansion of water on freezing.
5. Heat of fusion of ice.
6. Origin of heat that melts ice in a refrigerator.
7. Phenomenon showing that water expands on freezing.
8. Reason why it is warmer near lakes than inland.
9. Statement as to whether ice must melt to cool a refrigerator.
10. Statement as to whether the temperatuure is as low in vicinity of large bodies of water as elsewhere.
11. Statement as to whether the melting point of ice can ever be changed.
12. Statement as to whether all crystalline substances have fixed melting points.
13. Statement of the law of the constancy of the temperature of melting or solidifying in substances.

14. Statement of what happens when a thermometer is thrust into a pan of snow set over a source of heat.
15. Two substances that behave unlike the crystalline in fusing.

Evaporation of Vaporization

1. Statement as to whether evaporation is faster at high or low temperatures.
2. Statement as to whether ice and snow evaporate below freezing point.
3. Statement as to whether wet clothes dry after freezing.
4. Statement as to what the above shows.
5. The way we know solids evaporate.
6. Statement as to whether water in open dish evaporates completely.

Hygrometry

1. Comparison of the winter humidity of average home with that of the desert.
2. Conditions for cloud formation.
3. Conditions for rain formation.
4. Definition of relative humidity.
5. Definition of dew point.
6. Statement as to whether air is usually saturated in the neighborhood of lakes.
7. Statement of whether the vapor necessary for saturation decreases with a fall in temperature.
8. The way water is boiled in hot, dry climates.
9. What drops of water on a pitcher of ice water illustrate.
10. What it is that keeps water cool in a porous container.

Boiling

1. Boiling points, give table of at pressure of 760 mm.
2. Boiling point of water at Quito; at top of Mt. Blanc.
3. Definition of boiling temperature.
4. Definition of distillation.
5. Explanation of distillation.
6. Statement of the law of variation of the boiling point due to pressure.
7. Freezing point of a saturated solution of salt.

Industrial Applications of Change of State.

1. Comparison between the artificial cooling of factories and cold storage plants with the manufacture of ice.
2. Explanation of a steam engine.
3. Explanation of ice manufacture.
4. Method of producing law temperatures in ice plants.
5. Way energy is transformed in all heat engines.
6. Who James Watt was.

Magnetism

1. Definition of a lodestone.
2. Definition of the poles of a magnet.
3. Definition of the north pole; the south pole.
4. Definition of induced magnetism.
5. Definition of the declination of a compass needle.
6. Explanation of magnetic attractions and repulsions.
7. Explanation of what follows when a magnet is dipped in iron filings.
8. Explanation of the arrangement of the lines of force in a magnetic field.
9. Explanation of magnetic induction.
10. Explanation of a dipping needle.
11. How a magnetized needle may be made to lose its magnetism.
12. Reason why the direction of a magnetic needle changes over the earth.
13. Statement as to whether an actual contact is necessary for magnetism.
14. Statement of the law of magnetic poles.
15. Statement of whether the broken parts of a magnetized needle are magnets.
16. Statement of what has been known for centuries about magnetite.
17. Ways of making a magnetized needle lose part of its magnetism.
18. Ways of making magnets.

Static Electricity

1. Cause of thunder.
2. Definition of an insulator.
3. Explanation of the pith ball electroscope.
4. Explanation of the principle of the condenser.
5. Explanation of charging the Leyden jar.
6. Five substances that are non-conductors.
7. Insulating powers, give table of substances according to.
8. One electrical conductor.
9. Practical application of Franklin's kite experiment.
10. Reason for name "electrification."
11. Time of Franklin's kite experiment.
12. What lightning is.

Magnetic and Chemical Effect of Current

1. Amount of silver deposited in one hour by one ampere.
2. Definition of an anode.
3. Definition of a cathode.
4. Definition of an ampere.
5. Definition of an electromagnet.
6. Explanation of electroplating.
7. Explanation of electrolysis.
8. Explanation of electrotyping.
9. Explanation of a simple voltaic cell.
10. Explanation of Oersted's experiment.
11. Explanation of a bar electromagnet.
12. Most common way of detecting an electric current.
13. Reason for the belief that water is composed of two atoms of hydrogen and one of oxygen.
14. Results of replacing H_2SO_4 with $CuSO_4$ in a dissociation experiment.
15. Statement as to whether the deposit of metal is affected by the material in the electrolyte.
16. What Faraday's 1834 discovery was.
17. What the unit of electrical quantity is.

Electric Bell and Telegraph

1. Explanation of an electric bell.
2. Explanation of a sounder.
3. Explanation of a telegraph system.
4. Way telegraph messages were formerly read.
5. Way modern messages are read.

Induction

1. Definition of a step-down transformer.
2. Explanation of a transformer.
3. Explanation of a telephone receiver.
4. Explanation of a telephone circuit with a local battery.
5. Reduction of voltages of house currents for door bells.
6. Transformer on electric light pole, explanation of.
7. Time the telephone was invented.
8. Use of the transformer.

Dynamos and Motors

1. Definition of an armature.
2. Definition of a watt-hour meter.
3. Explanation of the principle of electric motor.
4. Explanation of the operation of street cars.
5. Explanation of a watt-hour meter.
6. Four-pole generator, graphical explanation of.
7. Use of the commutator in a motor.
8. What the watt-hour meter is essentially the same as.

Battery Cells

1. Composition of the black mixture in a dry cell.
2. Changes made by a current in the plates of a storage battery.
3. Definition of polarization.
4. Explanation of the dry cell.
5. Explanation of cells in series.
6. Explanation of cells in parallel.
7. Explanation of the lead plate storage cell.
8. Explanation of the chemical action in simple cell.
9. Reason for wide use of dry cells.
10. Reason for small internal resistance and the large current in a lead storage cell.
11. The form of the zinc plate in dry cell.
12. What the zinc plate contains.

Heating Effect of Current

1. Reason lamp filament is placed in a vacuum.
2. Statement as to whether carbon lamps are almost obsolete.
3. Usual method of grouping incandescent lamps.
4. Reason lamp filament is placed in a vacuum.
5. Statement as to whether carbon lamps are almost obsolete.
6. Usual method of grouping incandescent lamps.

Sound

A. Nature and Transmission of Sound

1. Explanation of sound waves.
2. Method of breaking up room echoes.

B. Musical Sounds.

1. Vibration number of middle C forks.

Light

Photometry

1. Explanation of the law of inverse squares.
2. Explanation of the candle power comparison.
3. Way the intensity of light is expressed.

Velocity of Light

1. Speed of light.

Reflection and Mirrors

1. Explanation of the construction of an image in a plane mirror.
2. Explanation of the law of reflection.
3. Result of a beam of light falling on the surface of unglazed paper.
4. Statement of the law of angle of reflection.

Refraction

1. Explanation of the apparent elevation of the bottom of a body of water.

Lenses and Prisms

1. Definition of lenses.
2. Explanation of the location of the principal focus and the focal length of a convex lens.

Optical Instruments

1. Definition of the retina.
2. Explanation of a compound microscope.
3. Explanation of a photographic camera.
4. Explanation of the eye.
5. Explanation of the near-sighted eye.
6. Explanation of the far-sighted eye.
7. Reason a diverging lens corrects near-sightedness.
8. Reason a converging lens corrects far-sightedness.

Spectra
1. Cause of rainbows.
2. Definition of the rainbow.

Color Phenomena
1. Definition of a spectrum.
2. Definition of complementary colors.
3. Explanation of the decomposition of white light by prism.
4. Result of placing a red body in the blue end of the spectrum.
5. Self-luminous body, example of.
6. Two complementary colors.
7. Wave lengths of five colors.

II. LABORATORY EXERCISES

1. Finding the density of a solid lighter than water.
2. The use of pulleys to change the direction of a force, to multiply force and to multiply speed.
3. Magnetic fields.
4. The principle of the electromagnet.
5. The electric bell.
6. Boyle's Law.
7. The inclined plane.
8. The lever.
9. The fixed points of a thermometer.
10. Finding the specific heat of a metal.
11. The boiling point of alcohol.
12. Other magnetic effects of a current.
13. The Voltaic cell.
14. The refraction of light by glass.
15. The Laws of the Pendulum.
16. The Principle of Archimedes.
17. Dew point and relative humidity.

B. HIGH SCHOOL AND THE COLLEGE

I. TEXT MATERIAL

Units of Measure

Definition of derived units.
Fundamental unit of length in scientific measurement.
Meter, original intent of length.
Names of the three fundamental units of length, time, and mass.
Name of the fundamental unit of mass in the metric system.
Statement of whether the units of measure are connected by awkward multipliers.
When a measurement is said to be expressed in C. G. S. units.

Mechanics of Liquids and Gases

Aneroid, what does it mean.
Definition of a barometer.
Densities of 12 solids.
Explanation of the hydraulic press.
Explanation of the amount of atmospheric pressure.
Efficiency obtainable with turbine wheels.
Explanation of the expansibility of air.
Force, formula for.
Method of making the Cartesian diver sink or rise.
Pressure, the most useful application of the principle of transmission.
Sensitiveness of an aneroid barometer.
Statement of the law of pressure at a depth of h centimeters.

Statement of whether only air in tires etc. can expand.
Statement of the law of the displacement of a floating body.
Way the stem of commercial hydrometer is calibrated.
What Torricelli argued about the rise of water.

Pneumatic Devices
Centrifugal pump, construction and use, graphical explanation.
Explanation of the force pump.
Manometer pressure gauge, use and construction, graphical explanation.
Time Guericke invented the air pump.

Properties of Matter
Amount steam shrinks when reduced to water.
Cause of the effervescence of soda water.
Definition of adhesive force.
Explanation of the diffusion of a gas through porous walls.
Explanation of a spherical globule of oil.
Explanation of Boyle's law by the kinetic theory.
Explanation of the rise of liquids in capillary tubes.
Gas, what does amount absorbed by a liquid depend upon.
Molecules, how they move.
Reason a liquid when free tends to take a spherical shape.
Statement of two laws of ascension and depression in capillary tubes.
Statement of Holle's law.
Torque, definition of.

Force and Motion.
Body in a circle, requirement to keep it from flying off on a tangent.
Definition of the center of gravity.
Definition of momentum.
Explanation of the experiment demonstrating the component of force in any direction.
Explanation of a force acting on a displaced pendulum.
Explanation of relation between distance and time of fall.
Explanation of an example showing that a gram of force equals 980 dynes.
Experiment, proving Galileo's idea, graphical explanation.
Method of denoting the acceleration of gravity.
Parallel forces in general, graphical explanation of.
Projectile, two things preventing simple motion.
Sir Isaac Newton, when he wrote his treatise on Physics.
Statement of the rule for two lines locating the center of gravity.
Statement as to whether the stretch of a balance varies over the earth.
Statement of the first law of motion.
Time when Newton made his observations on inertia.
Universal gravitation, state Newton's law of.

Work and Mechanical Energy
Coefficients of friction of two substances.
Definition of a joule.
Definition of the pitch of a screw.
Definition of kinetic energy.
Definition of the coefficient of friction.
Explanation of combinations of pulleys.
Explanation of the differential pulley.
Explanation of combinations of pulleys.
Explanation of the couple.
Equilibrium of a lever.
Friction, three things friction depends on.
Friction, divided by total normal pressure is nearly constant for a given pair of surfaces regardless of the load.

Kinetic and potential forms, mutually interchangeable.
Machines, state whether important to lubricate all sorts.
Machine, state whether each part needs "right kind of lubricant."
Machinery, use of in shops.
Power of an average horse according to Watt.
Statement of whether the erg is a small unit.
Statement of the law of the mechanical advantage of the inclined plane.
Statement of whether work done against friction can ever be regained.
Two ways in which energy may be transformed.
Watts equivalent of 1 horse power.
Wheel and axle, state formula for.

Thermometry

Boiling point of mercury Centigrade.
Clinical thermometer, use of, graphical explanation.
Explanation of Galileo's thermometer.
Effect on pressure of cooling hydrogen to -273°C.
Liquid helium, give boiling point of.
Meaning of temperature increases in liquid or gas according to the kinetic theory.
Principle the operation of the thermometer depends on.
Statement as to the accuracy of the sensory measurement of temperature.

Expansion

Comparison of pressure and volume coefficients of expansion of all gases.
Coefficient of cubical expansion, definition of.
Definition of linear coefficient of expansion.
Explanation of the mercury pendulum.
Explanation of how wagon tires are put on.
Expansion pipes, provisions for in steam plants.
Pendulum rod of a clock, why often made of dry wood.
Reason rails are laid with spaces between them.
Statement of a fact that is important in preserving aquatic life.
Statement of the formula for volume and temperature.
Volume of a gas, explain example showing that it is proportioned to its absolute temperature.
Way of counteracting the tendency of a watch to lose time.

Mechanical Equivalent of Heat

Count Rumford's deductions from the fact that heat is developed in boring out a cannon.
Explanation of the principle of the fire syringe.
Heat, what is becoming more and more a convenient source of.
Kilogram-calorie, give equivalent of.
Physics, the most important generalization of all.
Something found in all devices for transforming work.
Time Joule made his famous tests.

Calorimetry

Definition of specific heat.
Nine specific heats.

Transference of Heat

An article that is a poor conductor.
Cause of ocean currents.
Explanation of the fact that a flame does not pass through wire gauze.
Explanation of a hot water heating system.
Evidence of a third method of heat transfer.
If one end of an iron poker is in the fire will the other end burn one's hand unless the poker has a wooden handle?
Method by which radiant heat travels.
Reason the land is heated faster than the sea in the day time.

Radiometer, graphical explanation of.
Three methods of heat transference.

Change of State

A. Fusion

Amount 1 cubic feet water expands on freezing.
Cast iron, is especially adapted to making castings. Reason for.
Heat of fusion of ice.
Kind of metals used for casting type.
Non-crystalline substances, name three.
Result for thrusting a therometer into a pan of snow set over a source of heat.
Statement of the law of the constancy of the temperature of a melting or solidifying substance.
Way geologists account for the flow of glaciers.

Evaporation or Vaporization

Explanation of saturated vapor.
Five constants of saturated vapor.
Statement of what is proved by the sudden fall of mercury when ether is inserted into a Torricelli tube.
Statement as to whether saturated vapor at given temperature can have only one pressure and one density.

Hygrometry

Comparison between the cooling of atmosphere with that of solid objects at night.
Explanation of how to find the dew point with water, ice, and a thermometer.
What drops on a pitcher of water illustrate.

Boiling

Boiling points, table of ten at 760 millimeters.
Definition of the heat of vaporization.
Explanation of the variation of boiling point with pressure.
Effect on vapor of dissolving solids in liquids.
Heat of vaporization of water.

Artificial Cooling

Explanation of why the freezing point of a salt solution is lower than that of pure water.
Ice and refrigerator plants, what is used in manufacturing ice.

Industrial Applications

Explanation of the steam engine.
Explanation of ice manufacture.
Engine, what is the advantage of two strokes of.
Medium surrounding the cylinders of an auto engine.

Magnetism

Compass, when first used in Europe.
Definition of the north pole.
Definition of permeability.
Definition of the dip of magnetic needle.
Definition of a magnetic field of unit strength.
Compare the dip of the magnetic needle at two points.
Explanation of magnetic attractions and repulsions.
Explanation of illustrations of magnetic lines of force.
Explanation that the earth is a magnet.
Explanation of magnetic induction with a magnet and nails.
Elongated lodestone with magnetic spots in ends, behavior of when suspended.
Like poles, graphical explanation of the lines of force between two.
Magnetic phenomena, Gilbert's explanation of.
Magnetization of the earth, evidence of irregularity in.

Origin of the use of the compass.
Statement of the relation between the hardness of steel and its magnetic retentivity.
Statement of the effect of heating a magnetized knitting needle red hot.
Statement as to whether the magnetic north pole of the earth ever shifts position.
Two metals that show marked magnetic properties.
Time Columbus discovered that the direction of compass needle changes.
Who Doctor Gilbert was.

Static Electricity

Capacity of a condenser, depends upon what.
Definition of a negatively electrified body.
Definition of the electrostatic voltmeter.
Definition of a dialectric.
Explanation of the conduction of electricity.
Explanation of Franklin's Kite experiment.
Explanation of the fact that charges reside on the surface.
Explanation of the electrophorus.
Explanation of the hydraulic analogy of condenser.
Electrophones, source of the energy in.
Examples of three nonconductors.
Gold leaf electroscope, why usually mounted in a glass case.
Negative charged body, what happens if the leaf is brought near.
Principle of commercial electrostatic machines.
Statement of the law of the electrical charge on the surface of a conductor.
Something observed by Thales as early as 600 B.C.
Time Franklin sent up his historic kite.
Who Doctor Gilbert was.

Magnetic and Chemical Effects of Currents.

Circuit, what happens when broken.
Definition of an anode.
Definition of ions.
Definition of an electrochemical equivalent.
Explanation of electroplating.
Explanation of the electrolysis of water.
Magnetism and electricity, evidence of connection, date of discovery.
Reason Oersted's 1820 experiment created interest.
Statement of what would happen if copper sulphate replaced sulphuric acid in the dissociation experiment.
Time Galvani discovered how to produce a continuous flow of current.
Unit of quantity of electricity, name of.
Who Ampere was.

Resistance and Electromotive Force

Connections in parallel, law governing circuits, voltage, current and joint resistance.
Definition of electromotive force in series.
Explanation of a shunt.
E.M.F. and current, comparison of in a given circuit.
Electromotive force, abbreviation for.
Proper arrangement of the cells when the resistance is large.
Statement of the law of the resistance and the temperature of metals.
Statement of the formula for the application of Ohm's law to an entire circuit.
Six cells with three in series and two in parallel, graphical explanation of.
Who the ohm was named for.

Devices for Measuring Current

Explanation of a suspended-coil galvanometer.
General way of measuring electric currents.
Voltmeter, when it gives correct values.

Electric Bell and Telegraph

Explanation of the electric bell.
Leyden jar, comparison of with the copper core and steel sheath of the Atlantic cable.
Receiving instrument, how operated.

Induction

Conductors, explain how one may receive a shock if the circuit of the large electromagnet is broken.
Definition of the step-up transformer.
Definition of the primary coil.
Explanation of the tungar rectifier.
Explanation of the core type of transformer.
Faraday and Henry, date of discovery of how to transform mechanical into electrical energy.
Statement of Lenz's law.
Telephone, what the transmitter contains.
Welding, use of a transformer in.

Dynamos and Motors and Alternators

Curve of alternating electromotive force.
Definition of the electric motor.
Definition of one current lagging behind another by 60°.
Explanation of the alternating current dynamo.
Explanation of the series dynamo.
Gramme ring, construction and operation of the magnetic field, graphical explanation.
Rotating magnetic field, diagram when currents are 90° apart, graphical explanation.
Way in which a dynamo can quickly build up its current.

Battery Cells

Composition of the electrolyte of a nickel-iron storage battery.
Definition of the volt in the legal sense.
Explanation of a gravity cell.
Explanation of the lead plate storage cell.
Electromotive force of cells in series.
Explanation of the water analogy to cells in parallel.
Edison storage cell, graphical explanation of the construction of.
Means of overcoming polarization in a dry cell.
Statement of whether electricity or only chemical energy is stored.
Statement of the advantage of gravity cell.
Way of accounting for the minus charge on the zinc plate.

Heating Effect of Current

Condition under which the current will always be expended in heat.
Explanation of an arc lamp.
Horse power, the number of watts in one.
Metallic arc lamp, construction and use of, graphical explanation.
Reason for the high efficiency of a tungsten bulb.
Statement as to whether nitrogen gives an efficient lamp.
Temperature in the plus crater of an arc lamp.
What an ordinary incandescent lamp consists of.

Electrical Radiations

Comparison of the discharge through vacua with that through air.
Coolidge X-ray tube, construction and use of.
Determination of the character of the oscillations from Leyden jar.
Explanation of oscillations of electric spark.
Explanation of the heating effect of cathode rays.
Explanation of a transmitting station.

Explanation of a wireless telephone transmitting station.
Fedderson photographs an electric spark, when.
Hertz discovers Hertzian waves, when.
Light and Hertzian waves, comparison of speed of travel.
Results of the continuous exhaustion of the tube with the spark passing through it.
Roentgen rays, action of.
Time Clerk Maxwell announced his theory.
Vacuum tube detector, construction and operation, graphical explanation.
Who Roentgen was.
Who Hertz was.
Electric waves, first detected and measured by whom.

Radioactivity

Atomic value of lead.
Comparison of the gamma rays with X-rays.
Definition of pitchblende.
Explanation of the accepted atomic value for lead.
Radium, usual form of.
Statement of what Madame Curie was searching for.
Use of thorium for radium and zinc compound.
What the charge of an alpha particle is.
Who Becquerel was.

Sound

Nature and Transmission

Cork or toy boat, behavior of when water passes.
Definition of a whispering gallery.
Definition of the "points in same phase."
Definition of a sound wave.
Explanation of the distinction between noise and musical sounds.
Explanation of the arrangement for beats.
Explanation of sound confined in a tube.
Energy of the voice, why sent in one direction by a megaphone.
Longitudinal waves in a rod, graphical explanation of the experiment illustrating.
Push or pull, graphical illustration of the fact that it may travel a long distance.
Speed of sound in water.
Sound, four objects which may reflect it.
What the pitch of a musical note depends upon.
Water wave, constitution of, graphical explanation.
What the pitch of vibrating body depends on.

Musical Sounds

Definition of a resonator
Explanation of how sympathetic vibrations are set up.
Explanation of a string vibrating in three segments.
Musical tone, three characteristics of.
Musical sound, effect of the distance upon intensity.
Note given out by a string vibrating in two parts.
Professor Dayton C. Miller, purpose of his instrument.
Production of musical sequence.
Relation of fundamental and overtones that produces full rich tones.
Statement as to whether C and B are discordant.
Who is Professor Dayton C. Miller.

Light

Photometry

Definition of a penumbra.
Explanation of the candle power comparison.
Intensity, the United States unit of.
Receiving surface inclined, does not receive as much light per square inch as when held at right angles.
Standard lamps, state whether any are altogether satisfactory.

Velocity of Light
Comparison of the velocity of light in air and in water.
Person who measured speed of light in air and in water.
Who Foucault was.

Wave Theory of Light
Definition of ether.
Faraday's theory, who developed it and put it on a mathematical basis.
Light waves, approaching a focus, graphical explanation.
Parallel beam, graphical explanation of.
Statement of whether light travels through interstellar spaces.
Who Huygens was.

Reflection and Mirrors
Definition of the angle of incidence.
Definition of a ray.
Explanation of the reason an image in a convex mirror is virtual, erect, and diminished.
Explanation of the reflection of a wave from a concave surface.
Principle underlying optical illusions.
Real image, graphical explanation of the method of getting the size of.
Statement of the law of the location of the image of a point in any plane mirror.
Way a beam is reflected from a rough surface.

Refraction
Composition of light according to the corpuscular theory.
Explanation of the path of a ray through a medium bounded by parallel faces.
Light, explain graphically why it is refracted on passing from air into water.
Refraction by a prism, graphical explanation of.
Statement of the general law of refraction.
Why do things seem to shimmer about a stove.

Lenses and Prisms
Definition of the principal axis.
Definition of lenses.
Diverging lens, graphical explanation of the action of.
Explanation of chromatic aberration in a lens.
Explanation of the formula for conjugate foci.
White light, graphical explanation of its decomposition by a glass prism.

Optical Instruments
Crystalline lens, advantages of.
Definition of accommodation.
Definition of the eye piece.
Diameter of the great lens at the Yerkes observatory.
Explanation of the magnifying power of a lens.
Explanation of the accommodation of the eye.
Formation of images of distant objects in the eye.
Object, why placed about ten inches from the eye.
Reason a diverging lens corrects near-sightedness.
Statement as to whether accommodation is partly lost in the eye of old age.
Usual reasón for far-sightedness.

Spectra
Absorption of rays by glowing gas, Kirchkoff's general statement regarding.
Dark absorption lines, rule for the production of.
Explanation of the Fraunhofer lines.
First person to observe the Fraunhofer lines.
Reason Fraunhofer lines are so called.
Spectrum everyone is familiar with.
Two things that will give continuous spectra.

Color Phenomena

Color depends upon what.
Explanation of red yard appearing red in red end of spectrum.
Factor determining the color of a body in daylight.
Result of placing a blue body in any color of the spectrum.
Use of Newton's color disc.

Polarization of Light

Comparison of the intensity of the original beam with that of a beam polarized by tourmaline.
Phenomenon on which we base our conclusions that light waves are transverse.

II. LABORATORY EXERCISES

Learning to read the vernier gauge.
Boyle's Law.
Archimedes' principle and the density of a solid.
Pressure coefficient of expansion of gases. Absolute zero.
Hooke's Law.
The principle of moments.
The use of pulleys to change the direction of a force, multiply force and multiply speed.
The linear coefficient of expansion of metals.
Finding the specific heat of a metal.
Cooling through change of state.
The heat of fusion of ice.
Measuring unknown resistance with Wheatstone's Bridge.
Currents induced by electro-magnets.
Finding the focal length of a lens.
Images formed by lenses, laws of.
The astronomical telescope.
The laws of the pendulum.
Calibration of a hydrometer.
The roller and the inclined plane.
The calibration of a thermometer.
Dew point and relative humidity.
Vibration number of a tuning fork.
Reflection in plane mirror, laws of.
Critical angle.
The use of the micrometer caliper.
The resultant of two forces.
Finding wave lengths of a tuning fork.
The laws of vibrating strings.
The focal length of a concave mirror.
Finding the ratio of the velocities of light in air and glass.
The density of a solid lighter than water.
The principle of Archimedes (liquids).
Magnetic effect of a current.
Motors and dynamos.
Heat of vaporization of water at the boiling point.
Electromagnetic induction.
The index of refraction with glass.
Sliding friction.
The Bunsen photometer.

C. ELEMENTS TAUGHT IN THE ELEMENTARY SCHOOL, THE HIGH SCHOOL AND THE COLLEGE

Compare Questions

Compare the energy given out by the sun with that received by the earth.
Compare graphically a Centigrade and a Fahrenheit thermometer.

Define and What is (Are) Questions

Define a centrifugal force.
Define diffusion.
Define power.
Define energy.
Define temperature, high and low.
Define winds.
Define a loadstone.
Define a line of force.
Define an electromagnet.
Define polarization (electric).
Define rainbow.
Define a liter.
Define capillarity.
Define an umbra.
Define refraction.

Explain Questions

Explain how solids increase in temperature.
Expain the structure of a horseshoe magnet.
Explain how an athlete throws a hammer.
Explain graphically the multiplication of force by the transmission of pressure.
Explain graphically the proof that air exerts pressure.
Explain graphically the character and extent of the atmosphere.
Explain graphically the structure and use of the hydraulic lift.
Explain graphically the cohesion of water.
Explain graphically how a needle may be made to float on water.
Explain graphically the principle of the wheel and axle.
Explain graphically how to find the zero point on a thermometer.
Explain graphically an ideal system of hot water heating.
Explain graphically the structure and use of the wet and dry bulb thermometer.
Explain graphically the principle of a steam turbine.
Explain graphically a compass.
Explain graphically the effect of breaking a magnet.
Explain graphically a simple voltaic cell.
Explain graphically the magnetic field around a current.
Explain graphically the principle of the sounder.
Explain graphically a modern telephone receiver.
Explain graphically the parallel operation of street cars.
Explain graphically a dry cell.
Explain graphically the arc lamp.
Explain graphically the theoretical proof of the law of inverse squares.
Explain graphically the principle of optical illusions.
Explain graphically the location of the principle focus and the focal length of a convex lens.
Explain graphically the condition of a far-sighted eye.
Explain graphically the construction and use of a force pump.
Explain graphically the use of a windlass.
Explain graphically a four pole generator.
Explain graphically the construction of diverging lenses.

Give Questions (Numerical Answers Mostly)

Give the densities of 16 solids.
Give the number of cubic feet of air to the pound.
Give the equivalent of a horse power in foot pounds per minute; in watts per second.

Give the boiling point of alcohol on a Centigrade thermometer.
Give the heat of vaporization of water.
Give the speed of sound in air; water; iron.
Give the freezing point on a Centigrade thermometer.

How Questions
How sensitive the aneroid barometer is.
How ammonia may be liquefied.
How a telegraph message was read formerly.
How non-self luminous bodies are visible.

Name Questions
Name three industrial uses of compressed air.
Name seven things for which inertia is responsible.
Name three insulators.
Name two self-luminous bodies.
Name two methods of transporting heat.

State Questions
State the law of pressure in various directions.
State whether air is ordinarily perceptible.
State whether the principle of Archimedes applied to gases as well as liquids.
State the equation for changing Centigrade to Fahrenheit.
State whether the melting point of ice can ever be changed.
State whether ice and snow evaporate at a temperature below the freezing point.
State whether the broken parts of a magnetized needle are magnetic.
State whether actual contact is necessary for magnetism.
State whether the air is a better medium for sound transmission than liquids or solids.
State whether adding pigments and adding colors are similar processes.
State whether metals are generally good conductors of heat.
State the results of Franklin's kite experiment.

What Questions
What happens when a layer of lead is laid on a layer of gold.
What is the accuracy of the sensory measurement of temperature.
What fact is important in preserving aquatic life.
What causes sea breezes.
What the effect of the expansion of freezing water is on animals.
What discovery was made about magnets in the 12th century.
What the practical applications of the results of Franklin's kite experiment are.
What the Morse alphabet consists of.
What the pitch of a vibrating body depends on.
What happens when a beam of light falls on a rough surface of unglazed white paper.
What happens when a red body is placed in the red end of the spectrum.
What is used in a thermometer to measure very low temperatures.
What did Franklin invent.
What color has the shortest wave length.

When Questions
When does a force do work on a body.
When did Oersted perform his experiment.

Where Questions
Where are Centigrade thermometers used almost exclusively.

Who Questions
Who was Oersted.

Why Questions
Why a siphon sometimes fails to act.
Why the direction of a magnetic needle changes at different points on the earth.
Why dry cells are so widely used.
Why metallic objects give a sensation of cold.

III. UNITED STATES HISTORY

A. THE ELEMENTARY SCHOOL AND THE HIGH SCHOOL

I. ADMINISTRATIONS

Adams, J.

1. Alien and Sedition Acts, date of passage.
2. Alien and Sedition Acts, what declaration of acts were.
3. Crime, what was considered a.
4. Election of 1796, what the situation was in.
5. Madison and Jefferson, writers of Virginia and Kentucky Resolutions.
6. Naturalization Act, provisions of.
7. Punishment of false scandal.
8. Virginia and Kentucky resolutions, what they declared about the Alien and Sedition Acts.

Adams, J. Q.

1. Adams, condition of sectional spirit under.
2. "Bargain and corruption," how they followed Clay and Adams.
3. Electoral votes, number received by Jackson in 1800.
4. New England, what it was beginning to want.
5. Tariff of Abominations, date of passage.
6. Tariff, what states made official protest against agitation for.

Jackson

1. Arkansas, date of admission to Union.
2. Bank bill, what Jackson did with it.
3. Calhoun, office resigned by.
4. Clay, stand of on principle of protection.
5. Congress of 1833, what principle it would never yield on.
6. Election of 1832, outcome of.
7. Election of 1832, name of vice-president elected.
8. Great Debate, what is known as.
9. Indian question, action of Georgia on.
10. Jackson, how people regarded him.
11. Jackson, how successful in killing National Bank.
12. Jackson's predecessors, kind they were.
13. Jackson, what banquet attended by.
14. Jackson's toast at Jefferson banquet.
15. National Banks, what they were accused of by state banks.
16. Nullifiers, what they did with their ordinance.
17. Ordinance of South Carolina on tariff acts.
18. Resistance to tariff, when legislatures were to begin.
19. South Carolina, name of body that called state convention.
20. South Carolina, what threat she made if United States tried to collect further duties.
21. Spoils System, what it was.
22. Tariff, disposition of bill on protection.
23. Van Buren, party supporting.
24. Webster, doctrine he gave utterance to.
25. Webster and Hayne, the ones taking part in great constitutional debate.
26. Wild Cat Currency, reasons for being poor.

Jefferson

1. Burr, Aaron, who he was.
2. Burr, date of his shooting of Hamilton.
3. Burr's trial for treason, result of.
4. Cession of Louisiana to France, date of.
5. Election of 1804, outcome of.

6. Hamilton, the one to whom Aaron Burr attributed his political lack of success.
7. Jefferson, President, how stirred to action on possibility of French empire in America.
8. Louisiana, date of adding it to our country.
9. Most important event of Jefferson's administration, what it was.
10. Republicans, who opposed them in 1808.
11. Spain, date of receiving triangle and west bank.

Madison

1. Character of administration.
2. Where Madison lived.

Monroe

1. Border raids, where carried on.
2. Creeks, what they did.
3. Election of 1820, Monroe's majority.
4. Electoral votes, number received by Crawford.
5. Era of Good Feeling, what was called.
6. Holy Alliance, date of formation.
7. Indemnity of citizens vs. Spain, how much United States agreed to pay.
8. Protectionist, what it means.
9. Treaty with Spain (1819), terms of.

Polk

1. Adams, Charles Francis, whom he was the son of.
2. Election of 1848, Free Soil candidate in.

Van Buren

1. Harrison, where he lived.

Washington

1. Adams, whose vote was second to, and thus became vice-president.
2. Assumption of state debts, attitude of North on.
3. Capital site, where fixed.
4. Court System, name of that followed establishment of Cabinet.
5. Debt, action of Congress on.
6. Departments, added since Washington's administration.
7. Election of 1796, who became president and vice-president in.
8. Electors, whom they voted for in election of 1796 for vice-president.
9. First Chief Justice, who he was.
10. House of Representatives, date of organization.
11. Interpretation of Constitution, Jefferson's view of.
12. Indians, where their power was broken.
13. Locality, question that Congress was deciding for Capital.
14. Proposal to pay all debts, what Hamilton proposed.
15. Randolph, Edmund, made Attorney General.
16. Strict construction view, what it was.
17. Tariff Law, date passed.
18. Washington, how he was chosen for president.
19. Washington elected first president.
20. Whiskey Rebellion, details leading up to.
21. Whiskey Rebellion, what it was.

Political Parties

1. Federalists, what they stood for.
2. Republicans, what they stood for.

II. COLONIES

Colonial Life

1. Berkeley, what he said about education.
2. Colleges established in New England, names of.

3. Charters, name of colonies that were granted.
4. Charges of witchcraft, who began them.
5. Education, how it was looked upon in New England.
6. Education, where the wealthy sent their sons to school.
7. Franklin, where he went as a poor boy to seek his fortune.
8. Houses of government, number of.
9. New York, elements strong in.
10. Pressed to death for witchcraft, the number.
11. Proprietary, what colonies were.
12. Right of veto by king, in which colony retained.
13. Time Harvard College founded.
14. Time King's college was founded.
15. Veto of an act of Assembly, in every colony but Connecticut and Rhode Island, exercised by whom.
16. William and Mary College, where founded.

Middle Colonies

Delaware.

1. Fort Christina, where built.
2. New Sweden, when the Swedes had to give up New Sweden.
3. Swedes, to whom they were forced to yield their position.

New Jersey

1. New Jersey, how it was divided.
2. New Jersey, date of division.
3. West New Jersey, under whose control it came.

New York

1. Dutch War, outcome of.
2. Leister, what happened to.
3. Stuyvesant, who forced him to surrender.

New Netherlands

1. Dutch West India Company, date it was authorized to plant and govern colonies in America.
2. Fur trade, chief urban center of.
3. Land purchased by Minuit from Indians, extent of.
4. Minuit, Peter, who he was.
5. New Netherlands, types of settlers in.
6. Religious toleration, how it was handled in New Holland.
7. William of Orange, who gave back colonial assembly to America.

Pennsylvania

1. Constitution of Pennsylvania, what it guaranteed.
2. First settlement in Pennsylvania, name of.
3. Mason-Dixon line, what it was.
4. Penn's grant of land in America, how he happened to get it.
5. Pennsylvania and Maryland boundary, what dispute arose.
6. Penn, length of time he spent in the colony.
7. Penn, where he determined to form his new state.
8. Quaker sect, who founded it.

New England Colonies and New England Confederation

1. Andros, how he ruled.
2. Charter Oak, what it was.
3. Indian murder of settlers, date of.
4. King Philip, who he was.
5. Metacom, whom he is better known as.
6. New England Confederation, why it was formed.
7. Pequot War, what it made.
8. Swanzey, attacked by whom.

Connecticut, Rhode Island, and New Haven

1. Connecticut, when it was founded.
2. Desire of Holland to secure fort in Connecticut Valley, evidence of.
3. Fundamental orders, what they were.
4. Hutchinson, Anne, who she was.
5. New Haven, when it was founded.
6. Rhode Island, treatment by Charles II.
7. Towns in Union, what they adopted.
8. Williams, Roger, who he was.
9. Williams, fate of.

Massachusetts Bay Colony

1. Charter given to colony by Charles, kind of.
2. Dorchester, date of receiving grant from council.
3. Final establishment of representative government, reason for.
4. Limitation of voters, how Governor Winthrop justified it.
5. Massachusetts Bay Colony, where it was given a grant of land.
6. Massachusetts, Governor appointed by King.
7. Quakers, beliefs of.
8. Religious persecution, culmination of.
9. Smith, name given to whole region by.
10. Williams, Roger, where from.

New Hampshire, Maine Colonies

1. Land grant given to Mason and Gorges, where it was.
2. Mason, John and Ferdinando Gorges, who they were.
3. New Hampshire, date of becoming a royal province.

Plymouth Colony

1. Council for New England, name of Company reorganized into.
2. English not satisfied in Holland, reasons.
3. Little Republic, length of existence.
4. Mayflower Compact, what it was.
5. Plymouth colony, number dying the first winter.
6. Pilgrims, kind of voyage of.
7. Plymouth, name given by early settlers.
8. Pilgrims, date of sailing.
9. Puritans, location of settlement.
10. Separatists in Holland, length of stay.
11. Separatists, what they called themselves.
12. Treaty between Massasoit and Pilgrims, what it was.

Southern Colonies

Carolinas

1. Carolina, number of lords and gentlemen land was granted to.
2. Carolina Constitution, age it was reactionary from.
3. Charles II, to whom he gave land.
4. Fundamental Constitution of Carolina, principles upon which it provided a social system.
5. Locke, John, who he was.
6. Proprietor, how interests were secured by English government.
7. South Carolina, date of first permanent settlement.

Georgia

1. Class of people Georgia was for.
2. England, size of army advanced against.
3. Immigrants to Georgia, what they were.
4. Oglethorpe, people included by his plan.
5. Spanish fleet, size of.

Maryland Colony

1. Act of Toleration, date of passage.
2. Baltimore, whom he appointed governor.
3. Claiborne, war in England that gave him chance against Baltimore.
4. Calvert, Leonard, who he was.
5. First Lord Baltimore, date of his death.
6. Lord Baltimore, who he was.
7. Kent Island, how case was finally settled.
8. Maryland, whom was property restored to in 18th century.
9. People coming to Maryland, number of.
10. Religion in Maryland, what religion it was a refuge for.

Virginia Colony

1. Bacon, length of time he was master of Virginia.
2. Bacon's Rebellion, description of.
3. Bacon's Rebellion, whom people sided with.
4. Berkeley, Governor, who he was.
5. Burning of Capitol, by which side.
6. Court's decision, action of king after.
7. Dale, what he succeeded in breaking up.
8. Englishman coming to Virginia after overthrow of Charles, kind of.
9. Governor of Virginia, what was sent to him.
10. Indians and whites, condition of affairs between.
11. Jamestown colony, who carried it through the dark period.
12. Jamestown, name of crop that put Jamestown on its feet.
13. London Company, what rights were given to the company.
14. Massacre of 1622, number of whites killed in.
15. Plymouth Company, what rights were given to the company.
16. "Starving time", how many were left afterwards.
17. Settlement, name of.
18. Twenty-two representatives, where they met.
19. Virginians, sustenance of.
20. Virginia, whom named for.
21. Winter of 1609 and 1610, what it is known as.

III. EUROPEAN BACKGROUND

Sixteenth Century

1. Spaniards, what religious beliefs they allowed their people to hold.

Seventeenth Century

1. Charles II, who became king after.

IV. COMBINATION IN BUSINESS

1. Articles included in the list for increased duties.
2. Causes of the Panic of 1873.
3. Conditions in the United States after 1900.
4. Date when McKinley attended the Buffalo Exposition.
5. Effect of the Panic of 1873.
6. Kind of spike driven to celebrate the completion of the railroad from coast to coast.
7. Manner in which the country pronounces against the administration in 1910.
8. Occasion when the Republican Party set about redeeming its platform promise of a high tariff.
9. Public positions held by Roosevelt before his election as Vice-President.
10. Place where the Central Pacific started Westward.
11. Roosevelt's intention as to McKinley's policies.
12. Reason why the process of consolidation of business interests strengthened the policy of high protection.

13. Speech made by President Taft which brought him the reproach of being a "stand patter."
14. Way in which the Dingley Tariff Bill changes the tariff of the Wilson-Gorman Act.

V. CONFEDERATION

1. Articles adopted by Congress, when they were adopted.
2. Claims to western land, how states responded to giving up claims.
3. Chairman of the committee of thirteen.
4. Effects of transference of western lands to national government.
5. Greatest defect of the Articles of Confederation.
6. Last state to ratify Confederation, name of.
7. Ordinance of 1787, what freedom was given under it.
8. One piece of statesmanlike and constructive work done by the government of the Confederation.
9. Position of the States under the Articles of Confederation.
10. Ruin of financial reputation at home and abroad, manner of.
11. Shay's Rebellion, how it was dispersed.
12. Shay's Rebellion, cause of.
13. States laying claim to territory between Alleghany Mountains and Mississippi River, names of.
14. Voluuntary contributions, how Congress was compelled to rely on them.

VI CONSTITUTION

Adoption

1. Annapolis, what was drawn up there.
2. Convention, kind of sessions.
3. Compromise, provisions of.
4. Compromise in the Constitution on representation between large and small states.
5. Convention, which state did not send delegate.
6. Electoral colleges, how they were supposed to work.
7. First National Convention, date of.
8. First Convention, proceedings or accomplishments of.
9. Fraction of slaves which were to be counted in apportioning representation for Congress.
10. General Convention, where advised to be held.
11. Kind of states which supported the New Jersey plan.
12. Length of time when Congress was not to disturb the slave trade.
13. Meeting of Maryland and Virginia representatives to decide on a commercial policy, when they met.
14. Method used by Hamilton to educate the public of New York to vote for the Constitution.
15. Moderator at convention, who acted as.
16. Navigation Acts, number of votes necessary to pass according to Virginian statesman.
17. Number of the majority in both Houses a Bill must receive to become a law over the president's veto.
18. Population representation, how many slaves were to be counted.
19. Ratification of amendment, how large a vote was necessary.
20. Reasons why the North and South were naturally opposed in opinions.
21. States first coming together to try to better government, means of.

Amendments

1. Abolishment of slavery, what amendment is responsible for.
2. Election of United States Senators, manner in which it was done prior to 17th amendment.
3. Proposed Amendments, what they were.
4. 13th Amendment, when it was passed.

5. 14th Amendment, what it provided for.
6. 17th Amendment, date of.
7. Treatment of Tennessee after she had ratified the 14th Amendment.

Country in 1789

1. Newspapers, number in United States in 1775.
2. Plantation owners, how they spent their time.

VII. DISCOVERY

1. Americus Vespucius, where he went.
2. Africa, where people thought it extended to.
3. Cabot, when he arrived on mainland of North America.
4. Cabot, what continent he touched.
5. Cabral, who he was.
6. Columbus, number of ships he had.
7. Columbus, number of voyages he made.
8. Columbus, length of time spent on sea.
9. Columbus, when he set sail.
10. Columbus, nature of welcome on his return home.
11. Columbus, treatment of by the Spanish sovereigns.
12. Columbus, where he sailed from.
13. Columbus, who finally outfitted him for his voyage.
14. Columbus, sensation made by on his return.
15. Columbus, where he visited and cruised.
16. Date of the rounding of the Cape of Good Hope.
17. Date when the "Line of Demarcation" was established.
18. Geographic conception of the earth to the end of the 15th century.
19. Magellan, what three things his trip proved.
20. Magellan, where he was killed.
21. Man who decreed the "Line of Demarcation."
22. Name of the explorer who sought the Indies by sailing westward on the Atlantic.
23. Pope's demarcation line, what it was.
24. Ponce de Leon, position of.
25. Pope's line, where the Spanish territory lay according to it.
26. Sailors, what they did.
27. Treatment by the Portuguese king of Columbus.
28. Vespucci, location sailed to.

VIII. ELECTIONS

Election of 1880

1. Election of 1880, outcome of.
2. Garfield, where from.
3. Garfield, James A., give character.
4. Hancock, Democratic nominee in 1880.

Election of 1884

1. Blaine, Republican nominee in 1884.
2. Cleveland, his attitude toward the protective tariff.
3. Cleveland, Grover, Democratic nominee in 1884.
4. Election of 1884, outcome of.
5. Governor St. John, Prohibitionists nominee in 1884.

Election of 1900

1. Bryan, Democratic and Popular nominee in 1900.
2. Exposition, name of that McKinley attended.
3. McKinley, what speech he had just finished when he was shot.
4. McKinley, when was he shot.
5. McKinley, who shot him.

Elections of 1904-1908-1912

1. Bryan, Democratic nominee in 1908.
2. Election of 1904, whom republicans renominated for president.
3. Election of 1908; candidate supported by Roosevelt in.
4. Election of 1908, outcome of.
5. Parker, Judge Alton B., Democratic candidate in 1904.
6. Progressive Republicans, attitude opposed by whom.
7. Roosevelt, how large his plurality was in 1904.
8. Roosevelt group, outcome of.
9. Republican National Convention of 1912, where held.
10. Taft, Wm. H., Republican nominee in 1908.
11. Taft, majority received in election of 1908 by.
12. Woodrow Wilson, Democrat elected in 1912.
13. Wilson, rapid rise to public life.

Election of 1916

1. Election of 1916; Democratic nominee for President in.
2. Election of 1916; how close it was.
3. Progressive Party, fate of.

IX EXPLORATION

Early Exploration

1. Constantinople, when the Turks took it.
2. Indies, products used in Europe coming from Indies.

Exploration and Early Colonization

1. Attempts of French to break into Florida against Spanish, and the terrible results, description of.
2. Champlain, who he was.
3. Cortez, who he was.
4. Cartier, who he was.
5. De Soto, who he was.
6. Drake, Sir Francis, who he was.
7. Discovery of Lake Champlain by Champlain, date of.
8. Date when Verrazano sought the Indies in the west.
9. Expedition of Marquette and Joliet into the interior, date of.
10. First attempt of French to settle at Mississippi mouth, date of.
11. French, what three expeditions were made by French into Mississippi mouth territory.
12. Gilbert, the person unsuccessful in attempts to make settlement in Newfoundland.
13. Henry Hudson's third voyage, trace.
14. Iroquois, battle with.
15. La Salle, how far he explored.
16. La Salle, manner in which he was killed.
17. La Salle, who he was.
18. Marquette, how far south he explored the Mississippi.
19. Marquette and Joliet, who they were.
20. Ponce de Leon, date of visiting Florida.
21. Part religious beliefs had on feeling between England and Spain, statement of.
22. Raleigh, Sir Walter, what finally happened to him.
23. Raleigh, whom he named his colony after.
24. Quebec, who founded it.
25. Sir Humphrey Gilbert, how successful he was in attempt to found a colony in Newfoundland.
26. Spanish Exploration, only reason for.

X FOREIGN AFFAIRS

1849-1861

1. Ostend, what ministers met there.
2. Ostend, Manifesto, outcome of.

1861-1864

1. France, how France received United States' demand to leave continent.
2. Maximilian, what happened to him.

1865-1877

1. Court of Arbitration of Cruiser Claims, where it met.

1877-1893

1. Americans killed at Valparaiso, number of.
2. Bering Sea, what award was given in trouble.
3. Commander of the Union Warship Kearsarge.
4. Italians killed in New Orleans, number of.
5. Trouble with Italy, what ended the.
6. Uprising in Chile, outcome of.

1893-1897

1. Great Britain, how Great Britain received message.
2. Message sent by Cleveland to Congress, kind of.
3. Venezuelan trouble, how Great Britain received United States' suggestion to arbitrate.
4. Venezuela dispute, outcome of proposal made by Cleveland to Great Britain.

1898 (See Spanish-American War)

By Administrations

A. Adams, J.

1. French agents, how they were designated in Adam's communication to Congress.
2. Steps preparatory to war, what were taken.
3. X. Y. Z. Affair, how received in America.

B. Jefferson

1. American frigate, what it was called.
2. Berlin and Milan decrees, what they were.
3. Case of Impressment between Leopard and Chesapeake, description of.
4. Embargo Act, what it was.
5. Embargo, where discontent arose over.
6. Great Britain and France, troubles they were still making for United States.
7. Jefferson, course he decided to take.
8. Monroe's treaty, what happened to it.
9. Manner in which Napoleon received the offer for New Orleans.
10. Non-Intercourse Act, what it was.
11. Pirates in Mediterranean, what trouble United States had with them.
12. Pirates, where located.
13. Size of the United States navy in 1807.
14. Territory Napoleon offered to sell to the United States.
15. Wars with Barbary states, benefits of.

C. Monroe

1. Monroe Doctrine, what Monroe declared in his message to Congress.

D. Washington

1. Columbia river, when it was discovered.
2. England, where it excluded America from.
3. France, countries it declared war against.
4. Gent, how he was received by liberty-loving Americans.
5. General attitude of the United States toward Great Britain 1793.

6. Hamilton, how he was treated after Jay's Treaty.
7. Jay's Treaty, result of Jay's attempts.
8. Jay, promise of compensation he made.
9. Special envoy to England sent by Washington, name of.
10. Treaty, how Washington and commercial classes received it.
11. Washington's sentiment toward war.

Anglo-American Relations

Far East

1. Boxer Rebellion, what soldiers put it down.
2. China, how large an indemnity China had to pay.
3. Fleet on voyage around world, when Roosevelt sent it.
4. Roosevelt's battleships, how successful the trip was around the world.

International Arbitration

1. Court of Arbitration, where it meets (1919).
2. Japan and Russia induced by Roosevelt to arbitrate, date.
3. Roosevelt, influence in persuading Japan and Russia to negotiate.
4. Bering Sea, control United States claimed in.

Mexico

1 Assassination of Madero, what followed.
2. Control of government, who was in.
3. Dictator, who was set up as.
4. Huerta, date of resignation.
5. Madero, what happened to him.
6. Recognition by Wilson of Carranza as President, date.
7. Special message to Congress, what president asked for in.
8. Venezuela Affair, what boundary was in dispute.
9. United States army landed in Mexico, reason for.

Territorial Expansion

A. Alaska and Hawaii.

1. Alaska, number of square miles obtained.
2. Alaska, name of company purchased from.
3. Hawaii, kind of government it originally had.
4. Republic, what one was annexed.

B. Cuba.

1. Army in Cuba, things accomplished.
2. Cuba, when United States troops withdrew from.

C. Philippines.

1. Aguinaldo, date of revolt against Spain.
2. Aguinaldo, Emilio, who he was.
3. Philippine government, system created by act providing for.
4. Taft, appointed first governor of Philippines.

D. Virgin Islands.

1. Danish West Indies, what treaty allowed United States to occupy.

Pacific Problems to 1861

1. Reception of message by Japanese emperor, manner of.

XI GOVERNMENT REGULATION

Currency

1. Bland-Allison Act, provisions of.
2. Currency Law, what one was passed.
3. Federal Reserve banks, located in each Federal district.
4. Free coinage, meaning of.
5. Federal Reserve Act, effect on volume of currency by.

6. Gold Standard Act, date of signing by president.
7. Paper money value, good as gold.
8. Resumption Act, date of passage.
9. Silver Purchase Act, amount of silver allowed by government.
10. Silver Currency, hard times of business blamed on.

Tariff

1. Congress, bill revising the tariff passed in October 1913 by.
2. Democratic government, kind of government favored by.
3. Election of 1888, outcome of.
4. Election of 1910, result of party situation on the Congressional.
5. Failure of two houses to come to agreement on tariff, result of.
6. McKinley tariff, higher rates imposed.
7. Payne-Aldrich Law, what it failed to satisfy.
8. Payne-Aldrich Tariff, general characteristics of.
9. President's Policy, various names applied to those who supported.
10. Payne-Aldrich Tariff Act, feeling of many Republicans toward.
11. Revision of tariff of 1833, how great it was.
12. Special session, when it met.
13. Tariff Commission, activities of.
14. Underwood Tariff Act, downward revision accomplished by.
15. Wilson Tariff Act, concession in one clause to all classes of radicals.
16. Wilson, President, name of address which foreshadowed the reforms of his party.
17. Sixteenth Amendment to Constitution, date of.

Interstate Commerce

1. Interstate Commerce Act, when it was passed.

A. Interstate Commerce Trusts.

1. Passage of Trade Commission Act, date of.
2. Roosevelt, name of his most notable recommendation to be made into law.

XII. IMMIGRATION

1. Attraction of Chinese to Pacific coast, reasons for.
2. American Party, reason for nicknaming "Know Nothing."
3. Foreign born population, where most of them settled.
4. Low wages, paid to Asiatics.

XIII INDIANS

1. Dawes Act, provisions of.
2. Indians, how whites treated.
3. Mound Builders, what is now believed of them.
4. Passage of Dawes Act, date of.
5. Under Dawes Act, what the Indian may do with land after acquisition.

XIV LABOR

1. Effect of the Panic in 1873 on the working classes.
2. Knights of Labor, the organization standing over local and national union, name of.
3. Only resort of the laborers.
4. Place where the first labor party held its convention.

Socialism

1. Grangers, what they were sometimes called.

Strikes

1. Battle at Pittsburg, how many dollars worth of property was destroyed.
2. Coal Miners' strike in Pennsylvania 1902, cause of.

3. Coal strike of 1902, who was to appoint Board of Arbitration.
4. Haymarket, number of ringleaders condemned to death.
5. Homestead Strike, how employers tried to handle strike.
6. Homestead Strike, cause of.
7. Pittsburgh, how severe strikes were in.
8. Pullman Palace Car Company strike in Pullman, events leading to.
9. Strikes, number on strike at one time.

XV. MISCELLANEOUS

Disasters

1. Boston fire, how great a loss was sustained.
2. Catastrophe, one of greatest in our history.

Geography of North America
None.

South, since Civil War

1. Exhibits, financial standing of South as shown by.

XVI. PANICS

1837

1. Acts of government precipitating panic.
2. Business disruption, extent of in 1837.
3. Banks, what they were to do after depositing surplus.
4. Debt, what one had been paid off shortly before.
5. Government money, how kept today.
6. Independent treasury system, whom introduced by.
7. Prosperity of "pet banks" mania it caused.
8. Specie, how great were effects of.
9. Speculation, game that was ripe.

1873

1. American Capital, ventures it had been turned into.
2. Reaction, when it began.

1893

1. Cleveland, act he urged repeal of.
2. Panic, effect of on laborers.
3. Silver Purchase Act, date of repealing.

XVII INDUSTRIAL AND ECONOMIC PROGRESS

a. After Civil War

1. Atlantic Cable, when the first one was stretched.
2. Cable stretched from Pacific to Philippines, date of.
3. Centennial of Nation's independence, when it was celebrated.
4. Columbian Exposition, when open to public.
5. Exposition, amount of total cost of.
6. Electric lights, telephone and electric trolley, date of.
7. 400th anniversary of discovery of America, where it was held.
8. Invention of wireless, date of.
9. Marconi, inventor of wireless telegraphy, name of.
10. Pan-Pacific Exposition, date of.
11. World Fair in San Francisco, date of.

b. Before Civil War

1. Boat, name of that made first entirely steam trip.
2. Cotton, value of in 1790.
3. Condition of the roads of the United States in 1800.
4. Date when the first steam locomotive was used.

5. Experiments in transportation being made in 1800.
6. Elements which forced immigrants to leave Germany in 1848.
7. Farms, name of new invention for.
8. Industry, chief one of South.
9. Morse, Samuel, who he was.
10. McCormick reaper, effect on methods of farming.
11. Negro slaves, reason for becoming.
12. Population of New York in 1820, amount of.
13. Reaper, name of inventor of.
14. Sewing machine, when it was first invented.
15. Telegraph, when it was invented.
16. Telegraph, name of designer of.
17. Writings of Washington Irving.

c. Early Industrial

1. British manufactures overwhelming "infant industries," means of.
2. First cotton machinery, where it was set up.
3. Slater, Sam, what he set up.
4. Weaving in first factories, methods of.

Recent National Projects

a. Conservation and Irrigation

1. Governors' meeting, purpose.

b. Panama Canal

1. Authority given by Congress on Panama question.
2. Colombia, how much was offered Colombia for the strip of land.
3. Colombia, alternative if United States would be unable to get Colombia.
4. Cost of canal, estimation of.
5. Canal, what Congress authorized concerning.
6. Colombia Canal Treaty, action taken by Colombia.
7. Colombia Canal Treaty, how did people on the Isthmus receive the rejection of treaty by Colombia.
8. Date when the French Company began work on the canal at Panama.
9. French, how much they would dispose of their right in Panama for.
10. Ferdinand De Lesseps, who he was.
11. Hay-Pauncefote Treaty, Provisions of.
12. Isthmus, earlier means of improving transportation across.
13. Meaning of "all nations," according to enemies of discrimination.
14. Manner in which the rejection of the Hay-Herron treaty by the Colombian Senate affected Panama.
15. Panama, compensation received.
16. Panama Canal, outcome of French attempt to build.
17. Panama, what treaty it made.
18. Panama Canal, number of attempts made to put canal through the Isthmus.
19. Route for canal, where alternative route lay.
20. Strip given to United States, width of.
21. Treaty, what country was negotiated with.
22. Treaty which was negotiated within a week of the Panama uprising.

Social Progress

a. After Civil War.

1. Colleges, for both men and women, how they have been endowed.
2. Polygamy, date of abolishing.

b. Before Civil War.

1. Cities, notable movement with respect to.
2. Dorr's Rebellion, where it was.
3. Mormons, kind of colony they formed.
4. Mormons, what was practiced by.
5. Rhode Island, how it was still being governed by 1842.
6. Social questions, what questions received more attention by states.
7. Suffrage in Rhode Island, outcome of.

XVIII. RECONSTRUCTION

Economic Reconstruction

1. Credit Mobilier Scandal, what class of men it involved.

Political

1. Army, number disbanded.
2. Bitter feeling between President and Congress by 1868, how it was developed.
3. Carpetbaggers, how they received their name.
4. Comparison of Lincoln's qualities with those of Johnson.
5. "Carpetbeggers," what they were.
6. Cooper, Peter, Greenbacks nominee for 1876.
7. Dispute over Hayes' vote, three states in which there was.
8. Danger of Democratic rule which threatened Congress in 1865.
9. Election of 1876 and its settlement, discussion of.
10. Electoral Commission, what it was to consist of.
11. Fourteenth Amendment, date it was declared in force.
12. Four southern states that had no representatives in Congress, what they were required to do.
13. Fourteenth Amendment, action taken on.
14. Governors, instructions given by Johnson in regarding organization of state governments.
15. Greeley, where from.
16. Hayes, Rutherford B., Republican nominee for 1876.
17. House of Representatives, action of against Johnson.
18. Impeachment, number of votes lacking in impeachment of president.
19. Johnson, how great a majority Congress had against him on the completion of his year career.
20. Johnson, reason why he was supposedly impeached.
21. Johnson, action of in case of Stanton.
22. Ku Klux Klan, purpose of.
23. Lincoln's plan of 1863, provisions of.
24. Lincoln's plan of reconstruction, date of proposal of.
25. Military rule, condition of franchise under.
26. Negroes' civil rights, the permanent form in which Congress put them.
27. Negro government, supplanted by Hayes with white government.
28. Provisions of the Reconstruction Act.
29. President after Lincoln, name of.
30. Radicals in Louisiana and South Carolina, action of.
31. Re-admission of states to Union, plan followed by Johnson.
32. Republicans, number on committee.
33. Reason why the last provision of the 14th amendment which excluded leaders of the Confederacy from their political rights, as unfair.
34. South, kind of laws passed by.
35. Southern states, number without representatives in Congress.
36. Stanton, what department he was from.
37. Stanton, what president demanded of him soon after Congress adjourned.
38. Societies formed by Southern whites, name of most famous.
39. Stanton, removed from office by Johnson in spite of Tenure of Office Act.
40. Tax, what had to be done to raise.
41. Tilden, how many more votes he needed to be elected.
42. Vagrancy laws, what they were to prevent.
43. Whiskey Ring, what it was.

XIX REFORM

Civil Service

1. Act which Cleveland asked the special Congress of 1893 to repeal.
2. Attitude of both parties toward tariff revision 1908.
3. Amount of increased productivity in West resulting from irrigation.
4. Bryan's stand on the silver question, 1896.

5. Belknap, who he was.
6. Classified list, method of appointments to.
7. Conditions which hampered Hayes throughout his administration.
8. Chief aim in Cleveland's election in 1892.
9. Candidate for the gold Democrats, 1896.
10. Character sketch of William Jennings Bryan.
11. Colonel George A. Goethals, who he was.
12. Date Congress passed a law fixing January 1, 1879 as the date when the Treasury would redeem all greenbacks.
13. Definition of Initiative.
14. Date of the passage of the pure food and drugs bill.
15. Date of the Democratic Convention in Baltimore.
16. Established ratio between gold and silver before 1834.
17. Explanation why the debtor classes protested against redemption of greenbacks.
18. Guiteau effect of his assassination of President on interest in Civil Service Reform.
19. Garfield, when he died.
20. "Greenbacks" what they were.
21. Greatest advantage Wilson believed resulted from the low tariff.
22. Import of Roosevelt's first message to Congress.
23. Length of time the Republican Party had held control of the executive branch of the United States Government.
24. Metal used as money to conduct business of the United States.
25. Manner in which the decision of the Electoral Commission was received.
26. Means used to preserve Taft's majority in the Republican Convention.
27. Man recommended by Roosevelt to be his successor in 1908.
28. Nominee for vice-president, who he was.
29. Number of electoral votes Tilden received.
30. Occasion when Hayes withdrew Federal troops from South Carolina and Louisiana.
31. Political offices, attitude toward since time of Jackson.
32. Party which controlled the House throughout Hayes' administration.
33. Parties which favored "international bimetallism."
34. Provision of the Underwood tariff bill.
35. Progressive candidate for Vice-President 1912.
36. Result of Garfield's assassination on the attitude of the whole country toward politics.
37. Reason why Florida, South Carolina and Louisiana had a double set of election returns in 1876.
38. Roosevelt's attitude toward combinations of capital.
39. Result of Roosevelt's attitude toward re-election in 1908.
40. Roosevelt's popular vote in 1904.
41. Significance of the Interstate Commerce Act.
42. States whose delegations supported Taft in Chicago in 1912.
43. Success of the Federal Reserve System.
44. Two terms Cleveland served as president of the United States.
45. Taft's electoral vote in 1908.
46. Use Belknap made of his position.
47. Way in which the Electoral Committee received its authority.
48. Way in which the Republican Party used Cleveland's message of 1887 in the campaign of 1888.

Cleveland's Administration

1. Australian Ballot, how it differed from old.
2. Presidental Succession Act, date of passage.

Municipal Government

1. Commission, essential principle.

Popular Legislation
1. Direct primary, kind of system.
2. Referendum, what it is.

Post Office
1. Parcel Post established, date.

Woman's Suffrage
1. Suffrage, which states granted.

XX. SECESSION

1. Arsenal, to whom it belonged.
2. Breckinridge, John C., nominated by Southern faction of Democrats in 1860.
3. Brown and his followers, what they took.
4. Brown, what had happened to him.
5. Brown's trial, date of.
6. Confederate states, when they met for first time.
7. Campaign debate of 1880, what it centered around.
8. Charleston Harbor, what ship had been sent with supplies to.
9. Democratic party split in 1860.
10. Davis, Jefferson, chosen first president of Confederacy.
11. Election of 1860, outcome of.
12. Election of 1860, Republican candidate in.
13. Firing on the Star of the West, result of.
14. Harper's Ferry, leader of.
15. John Brown's trial, outcome of.
16. John Brown's raid, how the South denounced it.
17. Mention Buchanan made of secession in his annual message—1860.
18. Ordinance of Secession, what it was.
19. Peace Congress, where it met.
20. States seceding, number of.
21. South's defense of slavery, reasons given.
22. Secessionists, what was done as soon as it became plain they were in earnest.
23. Stephens, where from.
24. Time Georgia joined South Carolina after her secession.
25. United States Arsenal, date of seizing.

XXI. SLAVERY

1. Anti-slavery petitions, what petitions flooded Congress after abolition movement.
2. Abolitionists, what they were.
3. Activity of abolitionists in the South.
4. Cause of Civil War and disunion in the United States.
5. First slaves, when they were brought into Virginia.
6. Gag rule, when it was abandoned.
7. "Indentured servants," meaning of.
8. Liberator, what the first appearance caused in South.
9. Methods for limiting slavery recognized by the Constitution.
10. Quotation: Calhoun, what he said about petitions.
11. Slaves, where used in large numbers.
12. Turner's Nat, massacre, where it was.

Missouri Compromise
1. Admission of Missouri Territory, date of bill for.
2. Adams, J. Q., change in his attitude toward abolition.
3. Attitude adopted by Maine's constitution toward slavery.
4. Balance on slavery question, how states maintained.
5. Clay's attitude toward slavery for 30 years.

6. Ex-president Adams, position of.
7. Effect of the discovery of gold in California on her population.
8. Final end of slavery in the United States petition, who was responsible for.
9. Liberator, where set up.
10. Missouri Compromise, when it was passed.
11. Power on slavery North declared that Congress had.
12. Question of the power of Congress under the Constitution, which was opened by Missouri's application for statehood.
13. Result of the votes polled by the Free Soil party on the election.
14. Solution of free or slave organization suggested by Cass.
15. Standing of slavery as a national issue after the Missouri Compromise.
16. Turner's Rebellion, where it took place.

Territories

1. Anti-slavery men in Kansas, military preparations of.
2. Brooks, where he was from.
3. Butler, where he was from.
4. Boston's treatment of Garrison.
5. Cases over fugitive slaves, what laws they let to.
6. Calhoun's speech, how given.
7. California, how slavery question was settled by them.
8. Civil war in Kansas, kind of fights it consisted of.
9. California's admission, who wrangled in Congress over it.
10. Compromise, who seconded the proposer of.
11. Douglas, Senator, where from.
12. Douglas, Stephen A., who he was.
13. Decision as to the slave or free state, who were to ultimately decide it.
14. Date of Origin of the American Anti-Slavery Society.
15. Election of 1856, number of states carried by Republicans in.
16. Election of 1852, who became president.
17. Fugitive slaves, where they went.
18. Fugitive Slave Law, duties of the bystander.
19. Fugitive Slave, rights he did not have.
20. Fugitive slaves, effect on both slaveholders and abolitionists.
21. "Great Pacificator" who he was.
22. John Brown's plan for freeing the slaves.
23. John Brown, who he was.
24. Kansas-Nebraska Bill, outcome of.
25. Kansas, what party at first seemed the stronger in.
26. Kansas, how it was torn.
27. Jundy's influence on Garrison.
28. Lawrence, what faction controlled.
29. Manner in which Butler's district expressed itself regarding his position in Congress.
30. Mexican territory, compromise proposed.
31. Northern leaders in opposition, demand made by.
32. Manner in which Lundy and Garrison worked together.
33. Oregon, slavery excluded.
34. Pierce, where from.
35. President Pierce's support of the pro-slavery legislature in Kansas.
36. Personal Liberty Laws, what they were.
37. Personal Liberty Laws, number of Northern states that enacted.
38. Republican party, when it was swept into existence.
39. Repudiation of successful pro-slavery acts by opponents of slavery after election.
40. Slavery question in Mexican territory, outside of California, settlement of.
41. Sumner, where he was from.
42. Sending of anti-slavery men to Kansas, why it was done.
43. Sumner, Charles, who he was.
44. Side President Pierce supported in Kansas in January, 1855.

45. Sumner, Charles, who he was.
46. Topeka, Kansas, under whose auspices it was founded.
47. Underground Railroad, where slaves escaped to by means of.
48. Underground Railroad, discussion of.
49. Wilmot, Davis, who he was.
50. Wilmot Proviso, when it was proposed.
51. Wilmot Proviso, what it was.
52. Washington's George, attitude toward slavery.

Dred Scott Decision

1. Admission of new states, use made of by friends of slavery.
2. Dred Scott Decision, leading points in.
3. Dred Scott Decision, how North felt about it.
4. Dred Scott Case, outcome of.
5. Missouri Compromise, how Supreme Court declared it unconstitutional.
6. Oregon, status of slaves in.
7. Scott's claim, what it was.
8. Supreme Court's Decision, what it might lead to.

Lecompton Constitution

1. Constitution, what second voting on Constitution showed about minds of people in Kansas on Constitution.
2. Kansas, how long it had to wait to be admitted as a state with free Constitution.

Lincoln-Douglas Debates

1. Lincoln, how he forced Douglas to answer.

Republican Party

1. Democratic Party, what had caused a secession from it.

XXII. TRANSPORTATION

1. American locomotive, date of first.
2. Canal, effect on other cities in their building.
3. Cumberland Railroad, where it was to extend.
4. Erie Canal, length of time to build.
5. Erie Canal, when it was completed.
6. Eads System, where put in.
7. "Fulton's Folly" what it was.
8. First steam locomotive, when it was invented.
9. National railroad, where it first crossed mountains.
10. Northern Pacific, where first part extended.
11. Panama Canal, who had been interested in possibilities of.
12. Railroads having the first steam engine.
13. Transcontinental railroads now, number of.
14. Union Pacific Railroad, where last spike was driven in.

XXIII. WAR

War of 1812.

1. Americans killed and wounded between Constitution and Guerriere, number of.
2. Action between navies, nature of.
3. Battle with Prevost on land, outcome of.
4. British, bold offensive campaign planned in third year.
5. Battle of Thames, importance of this victory.
6. Constitution and Guerriere, outcome of battle.
7. Capitol and public buildings, what was done to them.
8. Convention, place of meeting.
9. Date when war was declared against Great Britain.

10. Erie, who made brilliant naval success on.
11. Francis Scott Key, who he was.
12. Ghent, questions debated at over treaty of peace.
13. Hartford Convention, when it met.
14. Hartford Convention, what it was.
15. Hartford Convention, future of.
16. Joy over peace, effect of.
17. Last battle of the war, where it was fought.
18. Massachusetts, legislature, what it voted to raise.
19. Modern inventions which would have prevented the Battle of New Orleans.
20. Method by which the New Englanders expressed their disapproval of the War of 1812.
21. New Orleans, number of Americans killed.
22. New England, how New England actually felt the war more than many states that urged it.
23. New England, attitude taken to war regardless of anti-war demonstrations.
24. Overthrow of Napoleon in France, how it affected British army.
25. Privateers, number of British ships taken by privateers.
26. Pakenham, who he was.
27. Peace negotiations, where made.
28. Repulse of British on Lake Champlain, when.
29. Ships possessed by Great Britain at time of above battle, number of.
30. Success on Thames, result of.
31. Treaty of Ghent, when it was signed.
32. Thames, date of battle of.
33. Thames River, outcome of battle.

a. Events Leading to War of 1812.

1. British connection with Indians in Massacres, general belief about.
2. Demands of the members of the new Congress as to foreign relations of the United States.
3. England, attitude toward.
4. Hostile movement, what it was.
5. Indian territory, name of governor of.
6. Persistence of Great Britain in outraging commerce, how it was done.
7. Tippecanoe, outcome of battle of.

Civil War

a. First Year

1. Anderson, commander of the Federal fleet, name of.
2. American flag, when hauled down from Sumter.
3. Bull Run, how victory of South affected South.
4. Battle at Fort Sumter, outcome of.
5. Bull Run, where Northerners retreated afterwards.
6. Confederate firing, how fort answered.
7. Campaign plan of the North.
8. Capitol of Confederacy, location of after secession of Virginia.
9. Date Lincoln issued a proclamation calling for troops.
10. Davis, number that responded to call of.
11. Distance the Union troops were driven back the first day at Shiloh.
12. Date Rosecrans confronted Bragg at Chattanooga.
13. Date Sherman left Chattanooga.
14. Entrancée of Virginia into Confederacy, date of.
15. Fort Sumter, when flag was handed down from.
16. Fort Sumter, who first shot.
17. General Secession uprising, where it was.
18. Kentucky, reason for decision to stay in Union.
19. Kentucky, how divided.
20. Kentucky, army joined by many of their citizens.
21. Lee's attitude toward the Union.

22. Lincoln, number of volunteers called for by.
23. Leader who replaced Johnston in a vain attempt to save Atlanta.
24. Missouri, to whom credit was largely due for saving of Missouri for the Union.
25. Major Anderson, when he marched out.
26. Manassas, kind of engagement at.
27. Manassas, outcome of.
28. Manassas Junction, who commanded Federal forces at.
29. Northern press, cry of.
30. North, population of.
31. Number of prisoners taken at the capture of Vicksburg.
32. Person who headed Southern army at Manassas or Bull Run.
33. State militia, number Lincoln called.
34. Supplies of rifles, comparison of North and South in.
35. Secession, what call caused four other states to.
36. Struggle for control, where it was.
37. Success which attended the fighting at Chattanooga.
38. Troops which marched into Washington April 25.
39. Union men at Bull Run, number of.
40. West of the mountains, attitude toward secession.
41. Way in which Sherman responded to Hood's strategy.

b. Second Year

1. Attack on Shiloh, kind of.
2. Antietam, what McClellan failed to do after stopping Lee.
3. Army of St. Louis, who commanded army at.
4. Bragg's three divisions, date of putting in motion.
5. Buell, where he moved toward.
6. Buell's command, to whom given.
7. Beauregard, number of men he had at Corinth.
8. Bull Run, outcome of second battle.
9. Burnside, what he finally decided to do.
10. Battle of Seven Pines, data of.
11. Chickasaw, outcome of battle of.
12. Campaign against Richmond, who had undertaken campaign.
13. Corinth, what Grant forced South to do.
14. Confederate Warship, name of.
15. Comparison of the number of McClellan's men with his opponents.
16. Date of the battle of Sharpsburg on the Antietam Creek.
17. Date when Grant wrote to Halleck "I propose to fight it out on this line if it takes all summer."
18. Dispatch sent to South by Grant "No terms . . . . . can be accepted."
19. Event of November, 1861 which seemed to insure British interference with the Union blockade.
20. Fort Donelson, where it was.
21. Federal advance, location of by November and December of 1862.
22. Fort Donelson, number of prisoners taken by Grant.
23. Federals, how long before they were retreating.
24. Fort Henry, outcome of battle at.
25. Farragut's Fleet, what it had done below New Orleans.
26. Fredericksburg, which side made the attack on.
27. Grant, person who captured Fort Donelson.
28. Grant's first advance on Vicksburg, date of.
29. Grant's supplies, where destroyed.
30. Halleck, who were subordinate under.
31. Harper's Ferry, number of men Jackson captured it with.
32. Identity of the inventory of the Monitor.
33. Identity of general who replaced Burnside after the terrific defeat of Fredericksburg.
34. Important fort, location of most in Kentucky region.

35. Jackson, where he made his campaign.
36. Jackson, reason for being feared by War Department in Washington.
37. Kentucky, who moved East into.
38. Length of enlistment common in the Union militia.
39. Lee, where he fell back to.
40. Lee's attack, outcome of.
41. Mississippi river, battles effectively opening it.
42. Merrimac and Monitor, outcome of battle.
43. McClellan, plan of campaign decided upon by.
44. McClellan, what change was made by him.
45. McClellan, what the campaign was known as.
46. Memphis, date of surrender of.
47. Monitor, description of.
48. Manassas, where second battle was fought.
49. McClellan, whom replaced by.
50. McClellan's army, how it was drilled.
51. Monitor and Merrimac, kind of battle between.
52. Monitor, what sort of ship it was.
53. New Northern ship, name of.
54. Number of men who accompanied Pickett on his "charge."
55. Number of men Grant lost in 40 days of the Wilderness Campaign.
56. North, course it now took.
57. Protection of Confederate Capital, means of.
58. Plan of the campaign in 1864.
59. Place where Pope was forced to retreat August, 1862.
60. Pea Ridge, date of battle of.
61. Pea Ridge, where fought.
62. Pope's army, where it retreated toward.
63. Richmond, where McClellan withdrew after seven days' fighting at Richmond.
64. Richmond, how long McClellan fought there.
65. Result that the South hoped would develop from Wilke's insult to the British flag.
66. Richmond, what army McClellan was promised to help him take it.
67. Sherman, where repulsed.
68. Shiloh, distance from Pittsburgh Landing.
69. Success of the Union blockade of the Confederate coast.
70. Shiloh, date of battle at.
71. Southern conscription law, ages in law of April, 1862.
72. Towns taken by McClellan in marching to Richmond.
73. Virginia, what it did to the frigates in the harbor.
74. Van Dorn's attack on Corinth, who had failed in.
75. West Kentucky, who moved into.

c. Third Year

1. Army of Potomac, where driven back to.
2. Burnside, why replaced.
3. Bragg's army, what misfortunes it had suffered in.
4. Chattanooga, strategic point Grant seized to relieve Chattanooga.
5. Chancellorsville, outcome of battle at.
6. Confederates, what they did after the battle of Chancellorsville.
7. Chickamagua, kind of battle at.
8. Chickamagua, who displayed great firmness at.
9. Cemetery Ridge, whom Pickett met there.
10. Federals, number of prisoners taken by them at Vicksburg.
11. Gettysburg, kind of soil battle was fought on.
12. Gettysburg, outcome of battle at.
13. Gettysburg, when attack was delayed at.
14. Infantry fire, how effective.
15. Kearsarge and Alabama, when the Kearsarge sunk the Alabama.

16. Lee, date of setting out on campaign in Pennsylvania.
17. Lookout Mountain, outcome of battle at.
18. Mississippi Ridge, date Confederates were driven from.
19. Pickett's charge, how it ranks in history.
20. Rosecrans, when superseded by Thomas.
21. Thomas, what was taken next day by.
22. Vicksburg, outcome of battle on July 4.
23. Vicksburg, when it fell.

d. Fourth and Fifth Years

1. Appomattox, number of men surrendered at.
2. Army of North Virginia, condition of at the opening of 1865.
3. Alabama, where sunk.
4. Butler, number of men he had.
5. Banks and Steel, where they were to meet.
6. Confederates, where they surrendered.
7. Confederate army, amount of food on hand at time of surrender.
8. Commerce Destroyers, name of the most famous of.
9. Cost of the war, what was greatest element in.
10. Campaign across South Carolina, most terrible incident of.
11. Davis, where captured.
12. Date Lincoln was elected president of the United States.
13. Early, General, fought Sheridan in Shenandoah Valley.
14. Effect of the war on the idea of Secession by the states.
15. Evacuation of Atlanta, movement that compelled it.
16. Forces of Grant and Lee at Wilderness, comparison of.
17. Grant, placed at head of Union forces.
18. Grant, what army did he take command of after he was appointed chief.
19. Grant's capture of Richmond, date of.
20. Grant, when he was put at the head of Federal armies.
21. Hood's loss, how great it was.
22. Hood, what he thought Sherman would do when Confederates marched Northwest.
23. Johnston, to whom he surrendered.
24. Johnston, date of surrender.
25. Johnston, reason for removing.
26. Lee, what he was able to do to Grant.
27. Lee, when he was in the Wilderness.
28. Lee, to whom he surrendered.
29. Mansfield, date of battle of.
30. Movements south from Arkansas, who lead.
31. Mobile Bay, Farragut's victory in.
32. Nashville, date of battle of.
33. Privateers, what was issued to them.
34. Richmond, what Grant wrote to Lincoln about taking Richmond from the North.
35. Red River Expedition, who led.
36. Sherman, conditions on his "March to Sea."
37. Sherman, left in command of Union forces at Chattanooga.
38. Sherman, what he intended to do to the country of his enemies.
39. Sherman, methods used by in South Carolina.
40. Sherman, reason for not giving any more attention to Hood.
41. Shenandoah Valley raid made by Sheridan.
42. Smith, date of surrender.
43. Thomas, met Hood at Nashville.
44. Terms of surrender, what they were.
45. Wilderness, what is known as.
46. Where last active fighting took place.

e. Civil Affairs

1. Banks, what most banks did under new laws.
2. Circulation of currency at this time, kind of.
3. Draft, number of people killed and wounded by soldiers in New York.
4. Draft riots, when they broke out.
5. Election of 1864, what it was.
6. Effect of defeat in battles on value of "greenbacks", statement of.
7. Johnson, Andrew, where he was from.
8. Military measure government found it necessary to resort to, what it was.
9. New states added since War, names of.
10. President of United States in 1864, who was renominated by Republicans.
11. Riots in New York, kind of.
12. United States Sanitary Commission, what it was formed for.
13. Vice-President of United States in 1864, who was nominated by Republicans.

f. Emancipation Proclamation

1. Acceptance of Negroes into the Army, when.
2. Congress, what Congress had declared about war.
3. Emancipation, arguments of radicals in favor of.
4. Lincoln, at what battle Lincoln announced intention to free slaves.
5. Lincoln's final issue of Proclamation Emancipation, date of.
6. Proclamation of 1862, what it was.
7. Warning of South that President might emancipate slaves as a war measure, date of.

g. Foreign Affairs

1. Amount of damage done to United States commerce by the Alabama.
2. Confederate Commission, where escaped to.
3. Commission, what was done with.
4. English Prime Minister, demand of.
5. French monarchy in Mexico, when one was set up.
6. Increase of ill-feeling after Trent Affair, reasons for.
7. Mason and Slidell, what they were allowed to do.
8. Number of members of Geneva Tribunal.
9. South, why it thought England would never consent to the closing of Southern ports.
10. Trent affair, what principle Americans had violated in.

h. Leaders of Civil War

1. Booth's reason for killing Lincoln.
2. Conspirators against government imprisoned for life, number of.
3. Lincoln's inaugural speech, what he stated and affirmed.
4. Lincoln's assassin, where he fled to.
5. Seward, Lincoln's Secretary of State.

i. Life in the Confederacy

1. Devotion, growth of as hope decreased.
2. Money from Europe, why there was none.
3. South, how hurt on all four sides.

French and Indian War

1. Acadians, what happened to those who refused to give allegiance to King of England.
2. Battle of Plains of Abraham, who were killed.
3. Braddock, General, who he was.
4. Date of the massacre of English prisoners at Fort William Henry.
5. Fort Duquesne, date of occupation by General Forbes.
6. George III, date of refusal to pay annual subsidy.
7. Montcalm, what he said when he died.
8. Name of the leader of the British against Quebec.
9. Pitt, William, who he was.

10. Quebec, what sort of battle it was.
11. Siege of Quebec, date of.
12. Treaty of Paris, when signed.
13. War in America, results of.

Events Leading To French and Indian War

1. Albany plan, reasons for rejection.
2. "Albany Plan of Colonial Union", the.
3. Battle at Fort Necessity, outcome of.
4. Champlain's aid to Algonquins, date of.
5. French lining up of forts, methods of.
6. "Gateway to the West," what it was.
7. King William's War, what it was.
8. Location where the French began to construct a chain of forts.
9. Pepperell, name of one who captured Louisburg.
10. Seven Years' War, what really began it.
11. Style of warfare employed by the French and Indians.
12. Two reasons for the Albany Congress.
13. Territory England returned to France by the Peace of Paris.
14. Washington, governor's representative to French.

Revolutionary War

a. Acts and Events Leading to Revolutionary War

1. Administration of Justice Act, what it was.
2. Attitude of the colonists toward the bribe of George III to pay a tax on tea.
3. Attitude of George III toward taxing the colonists.
4. Attitude of the first king of the Hanoverian dynasty toward Parliamentary power.
5. Attitude of George III toward the Boston Tea Party.
6. Arcadia, another name for.
7. Boston Tea Party, what it was.
8. Boston Massacre, outcome of.
9. Boston Massacre, when it occurred.
10. Braddock, what fort he was to capture.
11. Conflict of second war, what it was generally called by colonists.
12. Colonists' cause, who supported it in Parliament.
13. Date of Battle of Lexington.
14. Date the Stamp Act was repealed.
15. Decision at the meeting, what they decided to do with the tea.
16. England and France, date of beginning of war between.
17. French and Indians, where they attacked in February.
18. First Continental Congress, where it met.
19. Greenville, George, who he was.
20. George III, how his mother inspired him to gain back some of the prestige of the crown.
21. Indirect effect on the English manufacturers if there had been strict enforcement of the Sugar and Molasses Act.
22. Indian outbreak in 1763, by whom led.
23. Men favoring separation, difficulty in making converts.
24. Massachusetts expedition against Port Royal, who led it.
25. Manner in which the Stamp Act was received by the colonists.
26. Method suggested by the Boston Town meeting as a protest against the Townshend Acts.
27. New York Legislature, what was done with.
28. Navigation Acts, provisions of.
29. Objection of colonists to the tax on tea, reason for.
30. Otis, voiced opposition of colonists on Writs of Assistance.
31. Place where the Boston Town meeting was held after the Boston massacre.
32. Parker, Captain, who he was.
33. Party in England which wished to repeal the Stamp Act.

34. Port Royal, what it was renamed.
35. Parson's Cause, what it was.
36. Quebec, what church was practically established throughout the vast province of.
37. Revenge George III wished for the "Boston Tea Party."
38. Reason why the Whigs in England were anxious for the repeal of the Stamp Act.
39. Stamp Act Congress, where it met.
40. Stamp Act, provisions of.
41. Stamp Act Congress, number of colonies attending.
42. Sugar Act, what it was.
43. Schenectady, where those who escaped fled.
44. Townshend Acts, provisions of.
45. Townshend, Charles, who he was.
46. Tea party, how colonists stood and watched.
47. Tea, where meeting was held that demanded governor to order tea to be returned.
48. Virginia force on front, who commanded.
49. Writs of Assistance, what they were.
50. War in the north, only large event of what.
51. War of the Grand Alliance, where it was.
52. What William Pitt said on repeal of Stamp Act.

b. Battles.

1. Arnold, how his trouble at his post affected him.
2. America, one thing demanded by America.
3. Arnold, Benedict, charge for which he was tried in court.
4. Adams and Hancock, what happened to them before regiment came.
5. Allen, Ethan, where he was from.
6. Andre, plotted with Arnold.
7. Battle between "Bon Homme Richard" and "Serapis," description of.
8. British, why they were unable to get across the bridge.
9. British and Americans lost before getting to Boston, number of.
10. Brandywine, how successful Washington was.
11. Battle of Saratoga, how French felt about it.
12. Battle at Long Island, outcome of.
13. Brandywine, who opposed Howe.
14. Bunker Hill, British losses.
15. Battle at Cowpens, outcome of.
16. Boston, where Washington transferred his army after success at Boston.
17. Clark's expedition into the Northwest, description of.
18. Charleston, outcome of British attempt against.
19. Change in the British plans which Washington's success in New Jersey necessitated.
20. Charleston, when British took it.
21. Conway's Cabal, effect on Washington's popularity.
22. Cornwallis, who he was.
23. Clark's expedition, what season it was in.
24. Camden, outcome of battle at.
25. Clark, George R., where he wanted to go.
26. Cornwallis' base of supplies, where it was.
27. Camden, Gage and Cornwallis met at.
28. Determination of the militia surrounding Boston to take higher ground, result of.
29. Date of the battle of Cowpens.
30. Date of the surrender of Cornwallis.
31. Fort Moultrie, Sergeant Jasper's heroic deed at.
32. Forts America lost in North before coming of Burgoyne, what they were.
33. Greene, Nathaniel, given Gates' command.
34. Guilford Court House, battle of (description).

35. Gage, where his soldiers marched.
36. Hale, Ethan, who he was.
37. Howe, date of sailing for Halifax.
38. John Paul Jones, who he was.
39. Kings Mountain, date of battle at.
40. Lafayette, where he was in command.
41. Lexington, who was at.
42. Lee's, Charles, treason, outcome of.
43. Lexington, orders British soldiers were given to carry out at.
44. Men in Burgoyne's army, kind of.
45. Moore's Creek, what two factions battle was between.
46. Morris, raised money by subscription.
47. Morris, Robert, who he was.
48. Montgomery, what happened to him at Quebec.
49. New York, Washington suffered defeat there in first New York engagement, date of.
50. New American boundaries, where they extended.
51. Number of men left in Washington's army when he reached the Delaware.
52. Orders given to British soldiers at Lexington.
53. Putnam, Colonel Israel, who he was.
54. Place where Washington finally found a safe position.
55. Princeton and Trenton, how victory affected patriots.
56. Place where Arnold went to live after the war.
57. Position Cornwallis and Arnold fortified.
58. Pickens, Marion and Sumter, who they were.
59. Paul Revere, what news he brought.
60. "Regulars" after Battle at Lexington, where they went.
61. Robert Morris, money raised by to pay army, amount of.
62. Reasons why the French ministry refused an alliance with the colonies.
63. Relation of Indians to Great Britain, what it was.
64. Second Continental Congress, where it met.
65. Sevier and Robertson, where they got.
66. Saratoga, number of men Burgoyne surrendered.
67. Saratoga, what happened to Schuyler on the eve of the battle of Saratoga.
68. Sevier, John and James Robertson, who they were.
69. Sea warfare in Revolution, what caused most harm.
70. Ticonderoga and Crown Point, success of.
71. Trenton, outcome of battle at.
72. Treaty of Paris, provisions of.
73. Two posts which Clark seized by surprise.
74. Trenton, when Washington started out for.
75. Vincennes, who was in command at.
76. Washington in winter or 1776-1777, where spent.
77. Washington, where he and his men stayed the winter before French supplies came.
78. Way in which France aided the United States in equipment.
79. What Cornwallis said about "bagging the fox" at Trenton.
80. Washington, condition of his men at Boston.
81. Washington's army at New York, what it had to do.
82. Howe, Burgoyne and St. Leger, where they were to join north.

Declaration of Independence

1. Colonies' last petition, how it was received.
2. Colonies' last petition to Parliament, whom they sent with it.
3. Declaration of Independence, when adopted.
4. Framing the Constitution, who was assigned the task of.
5. Independence of the United States, date of proclaiming.
6. Lee's motion on Independence of United States, when made.
7. Paine, Thomas, who he was.

8. Resolution for independence on June 7, who had introduced.
9. Result of the Declaration of Independence on the colonial position.
10. Words ending the twenty-seven grievances in the Declaration of Independence.

English History Background

1. Commonwealth, when it saw its end.
2. Rulers after Commonwealth, who came to the throne.

Navigation and Trade

1. Colonies, what they were forbidden to ship to other countries.
2. Sugar Act of 1764, what it imposed on the colonists.

Taxation

1. American Whigs, what they were interested in.
2. Circular letter, to what colonies was it addressed.
3. East India Company, what it had not planned on.
4. Politician who now took charge of American affairs, name of.
5. Royal governor of North Carolina, name of.
6. Stamp Tax, what it required the tax to be paid on.
7. Stamp Act, date of repeal of.
8. Tea, how it was received at some American ports.

The War

a. 1776-1778

1. American forces, number that slipped away and went over to British.
2. Burgoyne's surrender, importance of.
3. Brandywine, date of battle of.
4. Campaigns, number fought in America simultaneously.
5. Fort Washington, what was outcome of battle at.
6. Howe, number of British troops that landed with.
7. Halem, what happened to him.
8. Landing, where speedily effected.
9. Red ensign of the British Empire, what it was.
10. Thirteen stripes, what they represent.
11. Washington, where he had moved his headquarters.
12. Washington, number of men he had to cross Delaware.

b. 1778-1783

1. Andre, what he was doing when he was detected.
2. Americans in the South, who commanded.
3. British casualities, amount of.
4. Camden, what was more demolishing to the Americans than battle of.
5. Cornwallis, date he surrendered his whole army.
6. Clinton, who visited him in disguise.
7. Ferguson, number of men he had at Kings' Mountain.
8. Greene, where he skillfully lured Cornwallis.
9. Heroic bands, who were the leaders of.
10. Jones, where he fought the celebrated battle with the British Serapis.
11. Laurens, success of.
12. Mission to Louis XVI, to whom entrusted.
13. Stony Point, where it is.
14. Treaty between United States and Great Britain, date of signing.
15. Washington, where he planned to strike the British.
16. West Point, who planned to take.

Spanish American War

1. American Asiatic Squadron, commanded by whom.
2. Army of invasion, place of landing in Cuba.
3. Battle of Santiago Bay, outcome of.
4. Cervera blockaded at Santiago by whom.

5. Cervera, where he had anchored.
6. Compromise followed in the organizing of Port Rico.
7. Dewey, orders he received as commander.
8. Date when the treaty preliminaries were signed at Washington.
9. El Caney, outcome of battle at.
10. Extent of McKinley's popular majority 1800.
11. First president of Cuba, name of.
12. Intervention, authority of asked for by president.
13. Kind of entrance to Manila Bay.
14. Manner in which the Philippines were to participate in their Government in 1907.
15. Merrimac, who sank it.
16. Manila surrendered when.
17. Negotiations, date of conclusion.
18. Officer, name of that joined American forces.
19. Protocol, what it is.
20. Position Roosevelt resigned to become colonel of the Rough Riders.
21. Spanish ships, number utterly destroyed.
22. San Juan (and El Caney) outlying districts of Santiago taken by Shafter.
23. Santiago Port, who blockaded.
24. Spain, amount United States was to pay.
25. Spanish American War, where first event took place.
26. Speed with which the Spanish Fleet was sunk or in flames.
27. Share of government given to the native Philippines.
28. Shafter, General, took El Caney and San Juan.
29. Terms of the Joint Resolution in Congress.
30. United States fleet, fleet it prepared to meet.
31. Terms of the Joint Resolution in Congress.
32. United States fleet, fleet it prepared to meet.
33. Withdrawal of Spain's ministers from United States, when it was.

Events Leading to the Spanish American War

1. Cuba, date of revolt in.
2. Maine, what happened to it.
3. Maine, destroyed by Spaniards out of resentment for United States' sympathy with insurgents.
4. Name of the Governor-general.
5. Havana, what battleship ordered to.

World War

A. European

First Three Years

1. Belgium, attitude of.
2. "Land rich" powers, what two were in alliance.
3. Russia, what had people risen against.

B. United States A Neutral

1. American people, effect of German demands on.
2. Austria, demand made regarding American munitions being sold to Entente.
3. Cost of living, what happened to.
4. Germans, announcement, made by.
5. Lusitania, where it was approaching when sunk.
6. People of German descent, what they for the most part declared.
7. Submarine warfare, date of again starting.
8. Sinking of ships, what safety must be arranged before.
9. Wilson, idea of neutrality on which he remained firm.

C. United States A Belligerent

a. Preparation

1. American navy, how increased.
2. American experts, what it was their purpose to avoid.

3. Conscription, what act was passed for.
4. Germans, extent of plans in April.
5. Instruction camps, how they sprang up.
6. Money, what were issued to raise.
7. Third and fourth liberty loan, response to.

b. Conservation

1. Heatless days, discussion of.
2. Supplies of coal, what arrangement it was necessary for us to make concerning.

c. Battles

1. Americans, number of on French soil by July 14.
2. Austrian drive into Italy, situation in.
3. Action the United States took in regard to the World War.
4. Advice of Washington, Jefferson and Monroe regarding the mingling in European quarrels.
5. Attitude of the United States Government toward Great Britain's violations of international law.
6. Amount of food stuffs handled by the Food Administration monthly by the close of the war.
7. Bolshevism, how rapidly it spread.
8. Basis of the peace negotiations wished for by Prince Maximillian.
9. Chateau Thierry, effect of battle on allies.
10. Cambrai, what armies attacked at.
11. Condition in Europe affecting the United States.
12. Change which took place in the desire for vengeance on Germany.
13. Date of the murder of the Archduke Ferdinand.
14. Districts which gave the election to Wilson, 1916.
15. Date when the Lusitania was torpedoed.
16. Date when Germany offered peace terms to the Entente.
17. Date of Pershing's arrival in France.
18. Date when the United States took over the railroads.
19. Date when hostilities ceased.
20. Effect of Roosevelt's refusal to be the Progressive candidate.
21. First town captured by American troops in France.
22. Fourteen points, what they were the basis of.
23. Foch, where he massed his forces for a counter-attack.
24. German wedge at Chateau Thierry, how far from Paris.
25. German attack on British lines, when made.
26. Germans, location of before battle of St. Mihiel.
27. Hindenburg Line, what railroad lay just behind it.
28. Italy, attitude toward Austria in.
29. Kerensky, how long his influence lasted.
30. Lenin and Trotzky, what they did to Kerensky's power.
31. Location where the Lusitania was torpedoed.
32. Manner in which Germany received Wilson's appeals.
33. Main army, name of that broke the line.
34. New German drive, what forces directed against.
35. Naval program adopted by Congress in 1915.
36. Number of electoral votes received by Wilson in 1916.
37. Number of German merchant ships in American ports in 1917.
38. Nominee of the Republican convention of 1916.
39. Occasion when it seemed Hughes was elected president.
40. Occasion when Von Hollweg called the Treaty of 1839 "a scrap of paper."
41. Provisions of the Selective Service Act.
42. Part of the country Hughes carried in 1916.
43. Position of Austrians in Italy when we declared war on them.
44. Period when a fleet of our destroyers coöperated with the British and French in hunting submarines in European waters.

45. Reason American troops were assigned to a distant sector.
46. Russia, what was done to her industries.
47. Relation between France and Russia.
48. Reason why Germany backed Austria in punishing Serbia.
49. Reply by Germany to the United States note of February 10, 1915.
50. Situation at opening of 1918, how clearly Germans saw.
51. Sedan, what army advanced against.
52. Selective Service Act, what it was.
53. Size of an army we needed to war.
54. Two hostile campaigns which determined Wilson to call Congress April 2, 1917, two weeks later.
55. Wilson's ultimatum, result hoped for by the German reply to.

d. Welfare

1. Experts, names of those offering services.

e. Peace

1. Peace Congress, American delegates at.

XXIV. WESTWARD EXPANSION

1840-1850

1. Alamo, what it was.
2. Annexation, sentiment in the North against.
3. Alamo, what happened to every man in defense of.
4. Annexation, stand taken by Whigs on.
5. Attitude of frontiersmen toward the proclamation prohibiting settlements west of the Alleghanies.
6. Attitude of the administration at Washington toward annexation of Texas.
7. Boundary of the United States as settled by the treaty with Great Britain in 1846.
8. California, when gold was discovered.
9. California, where gold was discovered in 1848.
10. Claims of the United States on the Oregon Territory.
11. Discovery of gold in California, results of.
12. Date when the agreement of 1818 was renewed for an indefinite period.
13. Date when the Webster-Ashburton treaty was concluded.
14. Democratic candidate for President in 1844, name of.
15. Election, what state determined.
16. Effect of Mexico's policy on the United States expansionist policy.
17. Fremont, what he was doing before the Mexican War.
18. Gadsden Purchase, nature of.
19. Harrison, how soon after his inauguration did he die.
20. Journey to California, how difficult.
21. Maine, treaty signed regarding.
22. Mexicans, date of retreat from Gonzales.
23. Mexican, who had succeeded in crushing local governments in.
24. Northwest, what company had pushed its way to.
25. Oregon Territory, where United States claimed it extended.
26. Population of California, amount it increased in 1849.
27. Plans made to explore the Louisiana Purchase after 1803.
28. Polk, where he was from.
29. Rush to California, cause of.
30. River which was the most popular route into the interior.
31. San Jacinto, who attacked.
32. Santa Anna, who he was.
33. Secretary of State, who he was.
34. Texas, how Mexico encouraged United States citizens to come to Texas.
35. Texas, when it declared itself an independent state.
36. Texas, what some high-spirited young Americans had done to aid.

37. Texas, what Northern states feared if it was admitted.
38. Texas, date of completion of admission.
39. Tyler, how he declared his plans.
40. Tyler's cabinet, what it did.
41. Tyler, became president at Harrison's death.
42. Treaty of 1818, location of boundary made by.
43. Webster-Ashburton Treaty, 3 points of.
44. Whitman, what he determined ought to be done.
45. Whitman, Dr. Marcus, who he was.

Mexican War

1. American fleet, where it had been sent.
2. Battle of Monterey, outcome of.
3. Buena Vista, outcome of battle at.
4. Cerro Gordo, date of battle at.
5. Date when Taylor crossed the Rio Grande and occupied Matamoros.
6. Idea of war, how met throughout the country.
7. Kearny, where he occupied a town.
8. Mexico, action taken by United States before war was declared.
9. New Mexico, where cession extended.
10. President Polk's message to Congress relation to the Mexican War.
11. Rio Grande, side that first made attack on.
12. Scott, where he started on march to Mexico City.
13. Scott, where he marched from Vera Cruz.
14. Treaty of peace, provisions of.
15. Texas, what they proclaimed.
16. Taylor, date of attack on Rio Grande.
17. Taylor, ordered by Polk to border.

After the Civil War

1. Custer, what happened to him.
2. Colorado, when it became a state.
3. Indian conflicts, effect of closeness of population on.
4. Nebraska, when it became a state.
5. New territories, name of new ones that were organized.
6. Sioux, who led them in war.

After 1889

1. Arizona, when admitted to Union.
2. Idaho, when it entered Union.
3. New State admitted in 1911, name of.
4. Oklahoma territory, what it was organized from.
5. Oklahoma in 1900-1907, size of.
6. Oklahoma, when admitted to Union.
7. Western states, name of six that were admitted.

Frontier

1. Attempt made by George III to keep the colonies out of the land west of the Alleghanies.
2. Expedition, who conducted a famous one (Lewis and Clark).
3. Kentucky, stand it took in slavery.
4. Lewis and Clark, when they set out on scientific expedition.
5. Louisiana, when admitted to Union
6. North Carolina, what it later gave up.
7. Ohio, kind of settlers it was reserved for.
8. Pioneers in Kentucky, what they had pushed their way into.
9. Regulators in North Carolina, what many of North Carolinians did after defeat of.
10. Territory south of Ohio, what it was admitted as.
11. Watauga Road, who was first settler on in Tennessee.
12. Who headed expedition to the Pacific Coast.

B. THE HIGH SCHOOL AND THE COLLEGE

I. ADMINISTRATIONS

Adams, J.

1. Chief Justice appointed by Adams, name of.
2. Democratic-Republican nominee in 1800 for President, name of.
3. Law passed creating judgeships (what law was passed?)
4. Sedition act, provisions of.
5. Virginia and Kentucky Resolutions, writers of.

Adams, J. Q.

1. Beginning of opposition to National bank, manner of.
2. Congress at Panama, success of.
3. Dartmouth College Case, what it was.
4. Georgia surveys Indian land before a treaty was complete, reason for.
5. Maryland v. McCulloch case, date of.
6. Passage of Tariff of Abominations, date of.
7. Congress, what happened to it by time our representative reached Panama.

Jackson

1. Compromise Tariff Act, what it was.
2. Clay's desire to force the issue of national banks, reason for.
3. Effect on election of Jackson's vetoing of a recharter.
4. Election of 1832, names of rival candidates.
5. Jackson's attitude toward the National bank.
6. Jackson's action to kill National bank.
7. New Compromise Tariff, Provisions of.
8. Passage of tariff law slightly lowering rates, dates of.
9. Passage of Compromise Tariff Act, date of.
10. Roger B. Taney, who he was.
11. South Carolina's meeting of the tariff of 1832, manner of.
12. Votes received by Adams in 1828, number of.
13. Whig party, what it was.

Jefferson

1. Arguments put forth against Purchase of Louisiana (three).
2. Authority wanted by Jefferson for Purchase of Louisiana, statement of.
3. Albert Gallatin, to whom was he second only as United States treasurer.
4. Burr's bitterness to Hamilton, outcome of.
5. Chase, the one whom the House attempted to impeach.
6. Hamilton, the one to whom Aaron Burr attributed his lack of success politically.
7. Jefferson's disregard of precedent in his messages, manner of.
8. Louisiana Purchase, where it extended.
9. President Jefferson stirred to action on possibility of French empire in America, how.
10. Supreme Court's decision bearing out powers.
11. The rumors coming to America from France about Napoleon's restoring a colonial empire, statement of.

Monroe

1. Crawford, how he had been nominated.
2. Decision reached by Spain on selling Florida.
3. Exchange of ratifications by Spanish monarch in purchase of Florida not made until two years later, reasons for.
4. Holy Alliance, when it held meeting in Verona.
5. Importance of Florida.
6. Jackson, the one receiving the largest number of votes on election day, 1820.
7. Monroe's counter-demand on Spain.
8. President elected in 1820, name of.
9. The country not favoring an armed expedition in South America.

Van Buren
1. McLeod affair following Caroline affair, discussion of.
2. "Tippecanoe and Tylor too," meaning of.

Washington
1. Alexander Hamilton, made Secretary of Treasury.
2. Constitutional basis of President's Cabinet.
3. First Chief Justice, name of.
4. Hamilton's proposal to handle state debts, method of.
5. Hamilton's proposal of *national banks*, statement of.
6. Harmar and St. Clair in routing Indians, success of.
7. John Adams, person elected Vice-President, name of.
8. National debts, form of indebtedness of.
9. States debts after war, amount of.
10. Washington, how he was chosen President.
11. Whiskey Rebellion, outcome of.
12. Wayne, the person sent out by Washington against Indians in 1794.
13. Washington's oath of office, where it was taken.

Political Parties: Washington's Administration
1. Federalist Party, the kind of people who joined it.
2. Washington, how he was elected to second term.

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Colonial Life
1. Colonies to which the Irish and Scotch came.
2. Education, attitude in New England towards.
3. Farms in Middle, size of.
4. Jews in colonies, where they were.
5. Oldest college in America, name of.
6. Religious persecutions of Quakers by Puritans, some of.
7. Strong Church in South, Church of England.
8. Three types of colonies, comparison of.

Middle Colonies

A. Delaware
1. New Jersey, the kind of colony it became under William and Mary.

B. Pennsylvania
1. Pennsylvania, to what Penn dedicated Pennsylvania.

New England Colonies

A. Confederation and Dominion
1. Ambitious plan of England about her colonies, statement of.

B. Connecticut, Rhode Island, and New Haven
1. Government of Rhode Island and Connecticut under William and Mary.

C. Massachusetts Bay
1. Winthrop and his colony, when they arrived in America.

D. Plymouth
1. Persecuted Puritans, when they returned to England.
2. Separatists, how early they began leaving England.

Southern Colonies

A. Maryland
1. Colonists that fled to Maryland, type of.

B. Virginia
1. Jamestown, when it was founded.
2. Two groups of Virginia colonies, where they were located.

III. COMBINATION IN BUSINESS

1. John D. Rockefeller, head of Standard Oil.

IV. CONFEDERATION

1. A formal plan of Union, how early Congress had considered it.
2. Conditions on paper money in Massachusetts, description of.
3. Daniel Shay, who he was.
4. Government asking for money, response of states to it.
5. Money Congress got from states, amount of.
6. Ordinance of 1787, provisions of.
7. Provisions in treaty of 1783 which Great Britain refused to carry out.
   a. Did not remove troops from posts northwest of Ohio River.
   b. Did not recompense United States for carrying off valuable slaves.
8. Success of Confederation in war and peace, comparison of.
9. Shay's Rebellion, cause of.
10. Two forms of government lacking under the Confederation, what they were (Executive and Judiciary).
11. Georgia entered the Confederation, when.

V. CONSTITUTION

Adoption

1. Concession to South on slavery, what it was.
2. Election of members of legislature, method of.
3. *First National Convention,* where it was held.
4. Fifty-five delegates to National Convention, who were included in.
5. North Carolina's ratification of Constitution, how long it took.
6. Representatives from Maryland and Virginia, where they met in 1785.
7. States coming to convention, number of.
8. States inviting others to meet and talk over commercial policies, names of.
9. Vote necessary for ratification of amendment, size of.
10. Victory of Constitution in New York, to whom it was due.

Amendments

1. Bill of Rights, how it was appended to Constitution.
2. The 13th Amendment, what was contained in it.
3. The 14th Amendment, what was stated in it.
4. The 16th Amendment, when it was passed.
5. Wartime prohibition, what impetus it has.
   (Added strength to already strong movement for national prohibition by constitutional amendment).

VI. ELECTIONS

Election of 1880

1. Blocking of election during Haye's administration by Democrats in control both houses.
2. Grant, where located before brought forth as a presidential candidate in 1880.
3. General Weaver, nominee of Greenbacks in 1880, name of.
4. Haye's second term, why he had declared at the beginning of his administration he would not run.
5. Republican Convention in 1880, number of times necessary to nominate.
6. Republican Party, prevention of nomination of Grant by one portion.
7. Sherman, a second nominee for President at convention, (name of).

Election of 1884

1. Blaine's conduction of foreign affairs, manner of.
2. Blaine, suspicions attached to his name.

3. Benjamin Butler, Greenbacks nominee in 1884, name of.
4. Cleveland, former office held by.
5. Governor St. John, Prohibitionists nominee in 1884, name of.
6. St. John, where he came from.

Election of 1892

1. Cleveland, number of votes received.
2. Few Laws passed in Harrison's last two years, reason why.
3. Harrison, number of votes received.
4. Populist Party, what things were demanded in the party (six).
5. Weaver, number of votes received.

Election of 1896

1. Bryan, number of votes he received.
2. Bryan, the one who delivered masterly speech favoring free silver at Democratic Convention, name of.
3. Democratic Platform, what it embraced.
4. International bimetallism, what it is.
5. McKinley, where he was from.
6. Quotation: Bryan's words in famous free silver speech.
7. Reed, where he was from.
8. William Jennings Bryan, Democratic nominee for President, name of.

Election of 1900

1. Election of 1900, outcome.
2. McKinley, date of shooting.
3. Republican party, how it had become intrenched (two).
4. Social Democrats, how they polled in 1900.

Elections of 1904, 1908, 1912

1. Bull Moose Platform, what it was.
   a. Advanced social legislation for laboring classes.
   b. Woman's suffrage.
   c. Stricter control of trusts.
2. Democratic Convention in 1912, leading figure in.
3. Election of 1904, outcome of.
4. Progressives in 1912, what they did (Split to form *Bull Moose*).
5. Taft, former positions held.
   a. Governor of Philippines.
   b. Member of Roosevelt's cabinet.
6. Socialist candidate in 1904.
7. Wilson, where from.

VII. EXPLORATION

Early Colonization

1. (Footnote): Gray's discovery of the Columbia River, when.
2. Spanish Armada, what it was.

VIII. FOREIGN AFFAIRS

1849-1861

1. Clayton-Bulwer treaty, provisions of.
   a. Great Britain would not plant a colony in Central America.
   b. United States would waive Doctrine and allow Great Britain joint control over any canal built.
2. Filibustering expeditions led by Narcisso Lopez, purpose of.
3. Great Britain sending its fleet from Vera Cruz to go to Central America, reasons for.
4. Lopez' expedition, how it was received by people of island.

5. Narcisso Lopez' filibustering expeditions from United States to Cuba, when led.
6. Ostend Manifesto, under whose direction it was prepared.
7. Ostend Manifesto, outcome of the Ostend Manifesto.
8. Spain's injured feelings, how they got a chance to subside.
9. The "Black Warrior," what the Spanish authorities did with it.

1861-1864 (See Civil War)

1877-1893

1. Baltimore, where shore leave was given.
2. Bering Sea Affair, result of award in.
3. Blaine, invitation to all North and South American countries, what happened to it.
4. Chileans, bad feeling against North America.
5. Great Britain, result of arbitration.
6. Itata Case, what it was.
7. Italy, action finally taken by.
8. Italy, where trouble with occurred.
9. New Orleans, who was shot.
10. Pan-American Union, where it is maintained.
11. Seal Fishing, how other nations carried it on (unlimited slaughter).
12. Samoan Islands, result of joint protectorate in.
13. Treaty of Great Britain, United States, Japan, and Russia, what they bound themselves by the treaty to do.
14. Valparaiso, number of Americans wounded at.

1893-1897

1. Great Britain, how Great Britain received Cleveland's message (yielded gracefully).
2. Venezuelan Affair, boundary dispute between British Guiana and Venezuela.

1898 (See Spanish-American War)

Foreign Affairs by Administrations

Adams, J.

1. American Commissioners, how they were received by French statesmen.
2. France, who rose to power in France at this time.
3. Peace with France in 1800, provisions of.
   a. France abrogate treaty of alliance of 1778.
   b. America to renounce all claims of damages from French British War, 1793.

Jefferson's Administration

1. Americans said to be enforced in British Service in 1805, number of.
2. British Navy, why it was in a precarious condition at this time.
3. Embargo Act, what it was.
4. Great Britain and France, what troubles they were still making for United States.
5. Macon's Bill, No. 2, what it was.
6. Orders in Council, how Napoleon retaliated.
7. Pirates in Mediterranean, what trouble the United States had with.
8. What was the result when the Pasha agreed to let United States ships go unmolested.

Monroe's Administration

None

a. Monroe Doctrine

1. Quotation: Monroe's famous message to Congress.

Washington's Administration

1. Columbia River, discoverer of (name of).
2. French Revolution, what it was.
3. Genet, what his first steps were when he arrived in U. S.

4. Great Britain, what things Great Britain still refused to do.
   a. Withdraw troops from N. W. posts.
   b. Make compensation for slaves.
   c. Make commercial treaties opening her ports.
5. News of Jay's Treaty, how France received it.
6. Open port in West Indies, provision made on.
7. Special envoy sent by Washington to England, name of.
8. Voyage of the "Empress of China", tell about.

Far East

1. Boxer Rebellion, amount of Chinese indemnity.
2. Boxer Rebellion, number of Chinese boys and girls that came to the United States as a result of indemnity returned.
3. Boxer Rebellion, what sections were called.
4. Battleships, number sent by Roosevelt in tour around world.
5. (Footnote): Countries visited by United States Fleet (Leading countries of south and central Europe).
6. John Hay, Secretary of State at time of Boxer Rebellion, name of.
7. Japanese, claims against California law.
8. Six power groups, promise of United States to go in with.

International Arbitration

1. Boundary between Alaska and Canada, how settled by United States and Great Britain.
2. Elihu Root, position held after cabinet position.
3. Hague Conference, agreements formulated at.
4. Hague Conference (second), whom it was called by.
5. Japan and Russia, place of meeting.
6. Nobel Prize, why received by Roosevelt.
7. Roosevelt, person who suggested calling of second peace at the Hague, name of.

Application of Monroe Doctrine

1. Drago, Dr. Luis, who he was.
2. Pan-American Congress, whom Roosevelt sent.
3. Santo Domingo, final outcome of agreement.
4. Venezuelan troubles with Germany, Great Britain and Italy, discussion of.
5. Venezuelan Affair, notice sent by Germany to United States in.

Mexico

1. Action at last decided on by Wilson, what it was.
   (Land army in Mexico)
2. Diaz control, what things were evident in it.
   a. People had been oppressed.
   b. Taxes had been heavy.
   c. Land had passed in hands of a few.
3. Diaz, date of revolt against.
4. Huerta, date of resignation.
5. Madero, policy of.
6. Mexico, United States investments in.
7. Mexico, date of arrest of United States sailors in.
8. Mexico, who was recognized as president of by Wilson in 1915.
9. Sailors, (United States) where arrested.
10. United States army landing in Mexico, reasons for (to force Huerta to salute).
11. Wilson's "watchful waiting", how the United States began to react under it.

Territorial Acquisitions
Alaska and Hawaii

1. Alaska, amount paid for.
2. Alaska, date of purchase.
3. Hawaii, treaty concerning sent to the Senate by President Harrison.

Cuba (See also Spanish-American War)

1. Cuba, why United States is really bound to give her independence.
2. Cuba, United States action in insurrection in.
3. Cuban Republic, name of president elected in 1913.
4. Platt Amendment, provisions of.
5. Spanish-American War, problems of.

Early Attempts
None

Philippines (See also Spanish-American War)

1. Aguinaldo insurgents, effect upon natives.
2. Aguinaldo, location during Spanish-American War.
3. Philippines, what kind of warfare carried on.
4. Philippine legislative body, majority of natives permitted by President Wilson.

Government of Philippines

1. Philippines, state of American government in.
2. Philippines, method of appointing governor and commission.
3. Philippine Government, who first president appointed was.

Porto Rico (See Spanish-American War)

Porto Rico, Government of

1. Citizenship, decision of Congress concerning Porto Rico and Philippines.

Virgin Islands

1. Danish West Indies, location.

IX. GOVERNMENT REGULATIONS

Currency

1. Bland-Allison Bill, period of enforcement.
2. Bonds, sold at end of Cleveland's term of office.
3. Demonetization of Silver, meaning of.
4. Federal Reserve Bank, what it is.
5. Greenbacks, effect of amassing $150,000,000 in gold upon, people's attitude toward).
6. Gold, how necessary to get in order to buy bonds.
7. Gold Standard Act, what it did.
8. Notes, issuance of by banks under old law.
9. Silver Purchase Act, amount allowed by.
10. Sherman Silver Purchase Act, date of passage.

Tariff

1. Canadian reciprocity, reaction of Congress to.
2. Congress, special session of 1919, whom called by.
3. Democratic majority in the House, reason for.
4. Kingley Tariff Act, who framed by.
5. Election of 1888, reason for being closely contested.
6. Election of 1908, who received majority in House.
7. Income Tax Act (1912).
8. McKinley Tariff, bounty per pound provided.
9. McKinley Tariff, amount of bounty on domestic sugar.
10. McKinley, where from.

11. Political position held by Harrison (1888).
12. Purpose of the special session of 1912.
13. Reduction of tariff, action of Congress at Arthur's request in.
14. Reciprocity, products affected chiefly by.
15. Reciprocity, principle of.
16. Rates imposed by the McKinley Tariff, nature of.
17. Sixteenth Amendment, President Taft's part in the passage of.
18. The Democratic nominee in 1888.
19. Tariff bills due to Democratic influence in 1910 which were vetoed by the President.
20. Tariff law of 1883, what it was.
21. Tariff Act of 1893, whom introduced by.
22. Tariff, action of President Wilson with regard to.
23. Underwood Tariff Act, accomplishment of.
24. Wilson Tariff Act, provision of concerning income tax.
25. Wilson Tariff, manner in which House accepted Senate's amendment.
26. Wilson Tariff Act, position of Wm. Wilson at time of passage of.

Interstate Commerce

1. Corporations, Illinois method of regulating.
2. Interstate Commerce Act, provisions of.
3. Meat Inspection Act, what it was.
4. Price discrimination forbidden.
5. Railroads, action taken by competitive railroads.
6. Rates on long hauls, nature of at times.
7. The Clayton Anti-Trust Act, provisions of.

Trusts

1. Clayton Anti-Trust Law, purpose of.
2. Clayton Anti-Trust Law, and restraint of trade.
3. Dissolution of the Northern Pacific and Great Northern.
4. Interstate Commerce Commission, types of corporations under.
5. Industry, powers assumed by government in control of.
6. Roosevelt, suit directed by him.
7. Sherman's Act, title of.
8. Sherman Anti-Trust Act, purpose of.
9. Trust Cases, order given by Court in.
10. Watch Trust Case.

X. IMMIGRATION

1. Bill excluding Chinese, reason why Hayes vetoed the bill (contrary to treaty).
2. Chinese Immigration, bill vetoed on by Hayes.
3. First law restricting immigration, when it was passed.
4. Immigration 1850-60, what things in Europe contributed to it.
   a. Potato failure.
   b. Repression of Polish revolution in Germany.
   c. Wars and upheavals all over.
5. Know-Nothing Party, what it was.
6. Treaty with Chinese, new treaty made by Hayes.

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XII. LABOR

1. Cleveland's Cabinet, names of Ex-Confederates on.
2. Cleveland, kind of governor and mayor he was.
3. Cleveland, when elected President.
4. Coxey's Army, what it was and what it did.
5. Coxey's Army, where it set out for.
6. Garland, where from.

7. Knights of Labor, purpose of.
8. Knights of Labor, number of members in 1886.
9. Labor organization, name of that stood above local and national union.
10. President's message to Congress in 1886, what he advocated (Permanent national commission of arbitration for settlement of all disputes between labor and capital).

Socialism

1. George's "Progress and Poverty", what was discussed in it.
2. Socialism, what it advocates.

Strikes

1. Colorado Coal Strike, 1914-15, character of.
2. Cripple Creek Coal Strike, when it was.
3. Fiercest struggle between soldiers and strikers, where it was.
4. Homestead Strike, effect on Republican Party in 1892.
5. Haymarket Square, who the assault was the work of.
6. Homestead Strike, date of.
7. John Mitchell, the one who led coal strikes in Pennsylvania in 1902 (name of).
8. Pullman Car Company strike, cause of.
9. Pullman Strike, what the members of American Railroad Union did in sympathy with Pullman strikers (refused to handle Pullmans).
10. Strike of 1902, result of findings of Board of Arbitration in.
11. Strike, date of largest strike in history.
12. Strikes at Paterson and Lawrence, when they were.

XIII. MISCELLANEOUS

South, Since Civil War

1. Grandfather clause, when it was declared unconstitutional.
2. Political conditions arising in South after reconstruction, what they were (Ex-slaves practically lost their ballot).

XIV. PANICS

1837

1. Main cause of the panic.

1857

1. Cause of the panic of 1857.

1893

1. Bankruptcy of Philadelphia and Reading Railroad, first incident in panic of 1893.
2. National Cordage, date of failure.
3. Panic of 1893, method by which Cleveland hoped to get relief.
4. Panic, one cause of.
   a. Excessive speculation.
5. Savings banks failing in 1893, number of.

1907

1. Panic of 1907, where disaster began.

XV. PROGRESS

Industrial and Economic Progress

After Civil War

1. Atlantic Cable, date of completing a really successful one.
2. Centennial, things America saw for the first time.
3. "Heavier than air" aeroplane, when it was perfected.
4. Lovers Telegraph, what it was perfected into.

Before Civil War
1. Cotton crop in 1850 and 1860, comparison of.

Early Progress
1. Cotton gin, when it was invented.

National Projects

Conservation and Irrigation
1. Action of Taft's leading to remonstrance, what it was (proposed to allow sale of certain coal-bearing lands in Alaska).
2. Ballinger, Secretary of Interior under Taft (name of).
3. "House of Government," when it was first called together.

Panama Canal
1. Act governing Panama, contents of.
   a. Exempted coastwise shipping of U.S. from tolls.
2. Colombia, when Colombia adjourned its Congress without acting on United States offer.
3. Discrimination on tolls, how Congress finally settled on it.
4. Hay-Pauncefote treaty, words upon which Great Britain based its claims on no discrimination in the treaty.
5. Panama, what it was a part of.
6. Panama, when the dirt first began to fly.

Social Progress

After Civil War
1. Billion dollar Congress, Reed's retort on.
2. Pensions, amount of in 1889.

Before Civil War
1. (Footnote): Dorr's Rebellion, outcome of.
2. First convention of delegates, when it was used in presidential election.
3. Rhode Island, how it was still being governed by 1842.

XVI. RECONSTRUCTION

Economic Reconstruction
1. Business and politics, characterization of after war.
2. Corruption, date of worst period.
3. Democratic Nomination, attitude of Chase toward.
4. Negroes, how whites got them back into service.
5. Corruption, where widespread.
6. Debt of New York in two years under Tweed, size of.
7. Tweed, position of in New York.

Political Reconstruction
1. Actual conditions in South at this time, what they were. (Property destroyed).
2. Comparison of Lincoln and Johnson, what things Lincoln had that Johnson did not.
3. Counting of electoral votes, what occurred in joint session of Congress.
4. Difficulty in counting of votes, how it was increased.
5. Estrangement of Stalwarts, how else they were estranged. (Appointment of Key, as P. M. I.)
6. Electoral college, the majority in it at this time (185).
7. Freedman's Bureau, what it was.
8. Formation of societies such as K.K.K. in South, reason for (Intimidation of negroes).
9. Grant, kind of man he was.
10. Greeley, supported by Democrats in election of 1872.

11. Hayes, how Democrats jeered.
    a. Old Eight to Seven.
12. Hayes political job he was holding at time of election (Governor of Ohio).
13. Investigations made by House on Republican election in South Carolina, Florida, and Louisiana, results of.
14. Johnson, where from.
15. James G. Blaine, where he was from.
16. Ku Klux Klan, examples of their doings.
17. Lincoln, successor to.
18. Liberal Republican Party, what it was.
19. Negroes, why easy to frighten.
20. President Hayes, one of first acts of
21. Question of Florida, how Congress settled it.
    (Appointing Electoral Commission).
22. Re-admission, state that was first granted.
23. Reconstruction, Congress' attitude toward President.
24. Re-admission of states to Union, plan under which all states acted.
25. Rutherford B. Hayes, Republican nominee for 1876.
26. Southern question, Congressional leaders in.
27. Stalwart faction of Republican party, what it was.
28. Seymour, nominated by Democrats for President in 1868.
29. "Tidal wave" of Democrats in Congress election of 1874, effect on the spirits of Democrats. (Increased hopes)
30. Votes polled by Cooper in 1876, number of.

XVII. REFORMS

1. Angering of Conkling and Platt by Garfield, how he did it.
   a. Not following recommendations for Cabinet.
   b. Appointing J. G. Blaine to Cabinet.
2. Arthur, attitude toward Spoils System.
3. Civil Service, offices affected by.
4. Garfield, how he showed his independence.
5. Garfield, date of death.
6. Hayes, support of reform movement.
7. Republican Party, when trouble first broke out in.

Cleveland's Administration

1. Australian Ballot, kind it was.
2. Electoral Law, why it was passed.
   (Render impossible such disputes as took place in 1876).
3. President Succession Act, order of succession prior to.
4. Succession Law, why unfair to voters to have another party become president.

Municipal Government and Popular Legislation

1. Arizona, action on recall of judges after admission.
2. Commission form of government, how it was spread.
3. Direct Primary, states that have adopted it.
4. Galveston and Des Moines, places where two forms of commission plan was used.
5. Initiative and referendum elimination of people being too busy or too ignorant to know what is being referred to them by Oregon.
6. Referendum, how it may be handled.
7. Recall, when originated.

Rules in House and Senate

1. Dilatory motions, how broken up by Reed.
2. Minority, why it had been able to block legislation.
3. Reed's Rules, final disposition of.
4. Reed, denounced as "Tyrant" and "Czar."

Woman's Suffrage

1. Idaho and Utah, date of granting equal suffrage.
2. Wyoming, date of giving equal suffrage.

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1. Bell, nominee of Constitutional Union party in 1860, name of.
2. Constitutional Union party, what it was.
3. Crittenden, where he was from.
4. Election of 1860, what the leading political question was in it.
5. Hinton Rowan Helper, who he was.
6. John Brown's raid (tells about).
7. John Brown, what he was charged with in trial.
8. John Brown's trial, where it was.
9. Lincoln's attitude on slavery, what it was in his speech at Republican convention.
10. Main parts of Confederate Constitution.
    a. Slavery
    b. Tariff
    c. Presidential term, powers
    d. Rights of cabinet members
11. Quotation: What Seward meant by "irrepressible conflict."
12. South Carolina's "Ordinance of Secession," when it was got out.
13. "Impending Crisis," what it was circulated as.

XIX. SLAVERY

1. Anti-Slavery petitions flooding Congress after abolition movement, what they were.
2. First real collision in slavery in North and South, when it came.
3. Nat Turner's massacre, where it was.
4. The Liberator, what it was.

Missouri Compromise

1. Congress' power over slavery, what the South declared Congress did not have.
2. Missouri, how it was formed.
3. Pro-slavery argument favoring Missouri as a slave state, upon what it was based.

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1. Auspices under which Topeka, Kansas, was founded by several thousand partisans, under whose auspices.
2. Brooks, where he was from.
3. Calhoun's answer to compromise, how it was received.
4. Calhoun, what the condition was in which he prepared answer to Compromise.
5. Compromise of 1850, author of.
6. David Wilmot, who he was.
7. Election of 1852, outcome of.
8. Fugitive Slave law of 1850, how a slaveholder could regain his runaway slave according to the law.
9. Free-Soil party, what it was largely composed of.
10. First election in new territory, outcome of.
11. Freemont, Presidential candidate for Republican in 1856.
12. General Taylor, how he had won fame.
13. John Brown's raid (tell about).
14. Kansas-Nebraska Bill, what the Missouri Compromise was declared as in Douglas' proposal.
15. "Know-Nothing" party, what party they supported in 1856.
16. "Lovers of Liberty" in Kansas, what action they took.

17. Missouri's attempt to wipe out Lawrence, Kansas, when.
18. Proviso, how it passed in House.
19. Pierce, the one to whom Whigs gave nomination in 1852.
20. Quotation: Whittier, how he voiced anti-slavery view of Webster's advocacy of Clay's Compromise Bill.
21. Rights of fugitive slaves, what rights they did not have.
22. Settlers in California in 1849, number of.
23. Surprising step taken by California in 1849, what it was.
24. Summer's speech on "Crime against Kansas," result of.
25. Stephen A. Douglas, who he was.
26. Uncle Tom's Cabin, what this book brought out.
27. Whigs and Democrats on Compromise of 1850, how they stood on it.
28. Webster's famous "Seventh-of-March" speech, what it was.
29. Wm. H. Seward, who he was.
30. Oregon, when it was organized as a territory.

Dred Scott Decision

1. Douglas' plan, how the Supreme Court set it aside.

Lecompton Constitution

1. Buchanan, what he said in his message to Congress on Lecompton Constitution.
2. Douglas, what he did on Lecompton Constitution stand.
3. Lecompton Constitution, what it was.
4. Ruse on Constitution fixed up by pro-slavery people, what it was.

Lincoln-Douglas Debates

1. Answer to question made by Douglas.
2. Fatal question put to Douglas by Lincoln, what it was.
3. Lincoln's party, name of.
4. Lincoln, the one who opposed Douglas as candidate for senator in Illinois in 1858.

Republican Party

1. Birthplace of Republican party, where it was.
2. Republican party, what it was formed for.

XX. TRANSPORTATION

1. Railroad, that started across the Isthmus of Panama, name of.
2. Union Pacific, date of meeting of west and east parts of.

XXI. WARS

French and Indian War

1. Battle on Plains of Abraham, who were killed.
2. General Wolfe, who he was.
3. Siege of Quebec, how long it lasted.
4. Treaty of Paris, what was contained in it (two).
   a. Gained territory between Appalachian Mountains and Mississippi River, all Canada except two islands off Newfoundland.
5. William Pitt, who he was.
6. French and Indian massacre at Schenectady, description of.

Revolutionary War.

Acts Leading to Revolution

1. Administration of Justice Act, what rights it gave.
2. Boston Massacre, description of.
3. Boston Port Bill, what it was.
4. Writs of assistance, what they were.

5. Killed and wounded in *Boston Massacre,* number of.
6. Molasses Act, what it was.
7. New financial policy of Grenville, what was included in it.
8. Sugar Act, what it was.
9. Stamp Act Congress, what it was.
10. Stamp Act, when it was passed.
11. Townshend Acts, when they were passed.

Battles of Revolution

1. Americans in Washington's and Rochambeau's army, number of.
2. British attempt to take Charleston, what it was.
3. Battle at King's Mountain, when it was fought.
4. Continental Currency problem, discussion of.
5. Cornwallis' surrender of his entire army, when.
6. Colonel Benedict Arnold, who he was.
7. Defeat suffered by Washington in first New York engagement, place of.
8. Frenchmen in Washington's and Rochambeau's army, number of.
9. General Howe, who he was.
10. Howe, where he was to go on way to Albany.
11. Lafayette, where he was in command.
12. Men surrendered by Burgoyne at *Saratoga,* number of.
13. Prime ministers after North, who followed in succession, names of.
14. Resignation of Lord North, when.
15. Second Continental Congress, what it did (eleven).
16. Second Continental Congress, when it met.
17. Treaty of Paris, provisions of.
    a. Recognition of independence
    b. Extensions of boundaries
    c. Fishing concessions
18. The most discouraging feature at crisis of war, it was.
19. Vital importance of West Point to the British, reason for.
20. Washington's announcement to the army about Declaration of Independence, what he announced.
21. Washington's belief that Christmas night would be a good time to surprise the Hessians, reason for.
22. New York, in whose hands it was through the entire Revolution, name of.

Declaration of Independence

1. Declaration of Independence, when it was adopted.
2. Hessians secured by George III, number of.
3. Resolution for independence, who introduced it (name of).

English History Background (Before Revolution)

1. Parliament meeting again after 11 years of inaction, date of.

Events Leading to Revolution

1. American and British views on representation, comparison of.
2. British and American views on rights of colonies and mother country at this time, comparison of.
3. Boston Tea Party, when it was.
4. England's new colonial policy, discussion of.
5. First Continental Congress, when it met.
6. George III, character sketch of.
7. Meeting of colonial representatives, where the twelve colonies sent their representatives to discuss situation and devise some plan of action.
8. New tariff duties, how America met them.
9. Revenue from colonies, comparison of cost of collecting with actual revenue collected.
10. Tax on tea, how large a tax it was.

Outside of America

1. Islands de Grasse got control of for France, names of.

War of 1812

1. Battle of Put-in-Bay on Lake Erie.
2. Battle on Thames River, outcome of.
3. Causes of war as given by Clay.
4. Clay, the most ardent "war hawk" in Congress, (name of).
5. English killed at New Orleans, number of.
6. First part of war, where it was to center.
7. General Van Rensselaer, who he was.
8. Hull, why he was not shot.
9. Hartford Convention, what kind of sessions it held.
10. Jackson, American leader at New Orleans, name of.
11. Macdonough, how old he was when he fought on Champlain.
12. March of Prevost after sack of Washington, where he went.
13. National Bank, when it had passed out of existence.
14. President and his wife, what they did when British took Washington.
15. Repulse of British, on Lake Champlain, date of.
16. Second National bank, when it was chartered.
17. *Treaty of Ghent,* when it was signed.

Events Leading to War of 1812

1. Battle of Tippecanoe, outcome of.
2. Feeling against British in West, how it was increased.
3. Promise of British minister, result of.

First Year of Civil War

1. Anderson and his fleet, where they sailed to.
2. Battle of Bull Run, what the men in North were aroused to after loss.
3. Cessation of party strife in the North (what strife ceased).
4. First blood shed in Civil War, where it was shed.
5. Missouri, what was necessary in Missouri before they became controllable.
6. Recommendation of some cabinet members on secession, what they urged.
7. Victory of South at Bull Run, how it affected the North.
8. Washington rendered safe after bloodshed at Baltimore.

Second Year of Civil War

1. Battle between Merrimac and Monitor, description of.
2. Battle of Shiloh, when it took place.
3. First clash of iron clad ships, what it was.
4. Foote, one who captured Fort Henry, name of.
5. Grant, one who took Union forces up to Shiloh.
6. Mississippi River, how far it was opened after capture of Island No. 10.
7. McClellan's March on Richmond, how many men he had.
8. Merrimac, what new name was given to it by the South.
9. McClellan's failure after stopping Lee at Antietam, what he failed to do.
10. McClellan's withdrawal after 7 days fighting at Richmond, where he went.
11. McDowell not meeting McClellan, reason for.
12. Shiloh, location of.
13. Harrison, where was Harrison Landing.

Third Year of Civil War

1. Chickamauga, place where Bragg attempted to fight Rosecrans, name of.
2. Gettysburg, how long the battle lasted.
3. Gettysburg, outcome of.
4. Pickett, the one Lee sent to attack Cemetery Ridge, name of.
5. Thomas, the one who held union center at Chickamauga, name of.

Fourth and Fifth Years of Civil War

1. Battles fought at Wilderness, Spottsylvania and Cold Harbor, kind of.
2. Fighting, when it began once more.
3. Grant, placed at head of union forces.
4. Kearsarge, when it sunk the Alabama.
5. Sherman's "march to the sea", when it was.
6. Thomas, the one who met Hood at Nashville, name of.

Civil Affairs of Civil War

1. Election of 1864, how the war affected the outcome of.
2. Riots in New York, kind of.
3. Lincoln, how he felt about his chances for election.
4. National Banking Act, when it was passed.
5. Quotation: The daring words entered in Democratic platform in 1864, "Four years of failure .... experiment of war."
6. United States Sanitary Commission, what it was formed for.
7. Unanimously elected President of Confederacy in 1861, name of.

Emancipation Proclamation

1. Butler's action regarding blacks at Fortress Monroe.

Foreign Affairs

1. Archduke Maximilian, the one placed as monarch in Mexico, name of.
2. British Foreign Enlistment Act, when it was passed.
3. Charles Francis Adams, minister to England at this time, name of.
4. French monarchy in Mexico, why it continued in Mexico after receiving the resolutions from the United States.
5. Gratification of republic over results of arbitration, reasons for.
6. Mexico, another country which was a serious problem in foreign affairs at this time (name of).
7. Payment by Great Britain for breaking neutrality, amount of.
8. "Shenandoah," where it was built and shipped from.
9. Trent Affair, discussion of the details of.
10. United States' demand of France, what it was.
    (To leave Mexico)
11. Other purchase Johnson and Seward tried to have Congress make, what it was.

Leaders

1. John Wilkes Booth, the one who killed Lincoln.
2. Section of country represented by Bates and Blair, what it was.

Spanish-American War

1. Dewey, final action against German fleet.
2. First combat at Manila, results of.
3. Manila Bay, number of Spanish ships utterly destroyed at.
4. Manila, other fleets at.
5. Porto Rico, how it was taken (no fighting).
6. Quotation: Orders sent to Dewey at Hongkong.
7. Resolutions, anniversary they were passed on.
8. Spain, United States first demands on.
9. Santiago, districts taken by Shafter.
10. Treaty of peace, date of signing.

Events Leading to Spanish American War

1. Autonomy, Spain's final offer to Cuba.
2. Cuban rebels, when Spain got them to lay down arms.
3. General Weyler, in charge of Spanish soldiers in Cuba.
4. Maine, what it was doing at Cuba.
5. Maine, destroying of it laid to Spain.
6. Revolt in Cuba of 1895, cause of.
   (Desire for freedom of mother country)

7. Spain's offer of autonomy, how Cubans received it.
8. Weyler, reason for forcing people of outlying districts into towns.

World War

First Three Years

1. Germany, first step of.
2. Lusitania, countries represented on.

United States—A Neutral

1. Continuous voyage, example of British application of that Lansing objected to.
2. Election of 1916, Democratic candidate in.
3. Lansing, policy of British he objected to.
4. Wilson, principles he held country to.
5. Wilson's war measure, date of reading it to Congress.

United States—A Belligerent

a. Battles

1. Armistice, date of signing.
2. Central Powers, new campaign in 1918.
3. Foch, where from.
4. Quotation: Pershing on position reached by American forces on Meuse—opposite Sedan.
5. St. Mihiel, character of casualities.
6. St. Mihiel, date of front line moving toward.

b. Conservation

1. Food, amount sent out by United States in 1918.
2. Products, what were record crops in 1918.
   Wheat
3. United States Food Administration, regulation of.
   Amount of sugar and flour to be disposed of by people.
4. War Labor Board, what they did.
   (Settled disputes in labor).

c. Welfare Work

1. Insurance, rate on government policies.
2. Scourge, name of that struck country during war.

d. Preparation

1. Fourth Liberty Loans, what kind of bonds they were.
2. Loans, name of one that was largest ever launched in any country.
3. Victory Loan, when launched.

Modern Warfare

1. Germans, number killed or died from wounds.

Peace

1. Monroe Doctrine being strengthened or weakened, question hotly debated over League.

XXII. WESTWARD EXPANSION

1840-1850

1. Annexation of Texas, attitude of Senate on.
2. Compromise Tariff of 1833 as related to that of 1842.
3. Clay's attitude on the Texas question in 1844.
4. Election of 1844, how interpreted by Tyler.
5. Fourth National Expansion, extent of.
6. Gadsden Purchase, price.
7. Independence of Texas, how viewed by President and Congress.
8. Northern boundary of Oregon, position of in 1843.

9. President who saw Texas invited to become a state.
10. Slavery as related to the Oregon question.
11. The Gold Rush of 1849, number who went.
12. The Gold Rush of 1849, trail how marked.
13. Tyler, quarrel with Whigs over tariff.
14. The fur-trading post at Astoria, description of.
15. The Whig campaign shout in 1844.
16. The sole remaining Whig in Tyler's cabinet after the quarrel.
17. The first "dark horse" in National politics.
18. Upshaw and Calhoun, pretext of for annexing Texas.

The Mexican War

1. Battles of Palo Alto and Resaca de la Palma, outcome of.
2. Kearney, Stockton, and Fremont, who they were.
3. Position given to Scott.
4. Polk's orders to Taylor.
5. The provisions of the Treaty of Peace.
6. Treaty of Peace, signed where.

After the Civil War

1. Colorado, date of becoming a state.
2. Railroads, receiving extended land grants.
3. Sioux, place of last stand.

After 1889

1. Montana, when it entered the Union.
2. Oklahoma, when it was opened up to white men.
3. Washington, when it entered the Union.

Frontier

1. Merriweather Lewis and William Clark, who they were.
2. Western lands sold at very small sum.

C. THE INTERMEDIATE AND GRAMMAR GRADES

I. ADMINISTRATION

Washington

1. Washington, his reception in New York.
2. Washington, inauguration, date of.
3. Washington's inauguration, description of.
4. Capital moved to Washington, D.C., when.
5. Manner of life of Jefferson.
6. Produce, where marketed.
7. Louisiana, Napoleon's plan for.
8. Napoleon's great need.

Jackson

1. Purchase of Florida, extent of.

Colonies

1. Land claimed by for France.
2. Extent of control in America.

II. COLONIZATION

1. Raleigh persists in his efforts to found a colony.
2. Raleigh sends two vessels to the New World, when.
3. Sir Walter Raleigh, who he was.
4. Raleigh, the foremost Englishman of Drake's time.
5. Settlers at Roanoke, carved Croatan on a tree.
6. Smith, Captain John fails to find the lost colony.
7. Smith reaches England when the Spanish Armada is being attacked.

8. Virginia colony, condition of after Smith left.
9. London Company sent the wrong kind of men to colonize Virginia.
10. Virginia colonists, number who died during the summer.
11. Success of the plan of importation of women.
12. John Smith, his power in preserving the colony.
13. Pocahontas saves the life of John Smith, how.
14. Plans to abandon the colony, reasons for.
15. The name of the new Virginia settlement.
16. Girls, number imported by the London Company in 1620.
17. The starving time, description of.
18. How the Virginia settlers obtained wives.

Southern Colonies

1. Oglethorpe, his social status.
2. Oglethorpe named the colony what.
3. James Oglethorpe, his attitude towards slavery.

(1) Maryland

1. Maryland Assembly, nature of.
2. Name given to the colony.
3. Maryland colony objected to by the Virginians, reason for.
4. Lord Baltimore sailed when.
5. Lord Baltimore attending King James.
6. Lord Delaware, kind of laws made by.
7. The appearance of Lord Delaware, description of.

Middle Colonies

1. King Charles II, Penn's request of.
2. Penn's land, location of.
3. Quakers and Indians, relations between.
4. Friends, motive for coming to the New World.
5. Poor Richard's Almanac published by whom?

Colonial Life

1. The first English child born in the new world, name of.
2. Industry of the New England colonists, discussion of.
3. The prevalence of schoolhouses.
4. Dutch houses, character of.
5. Colonists spent the evening how.

New England Colonies

1. Puritans object to English law of worship.
2. Attitude of the English king toward the Puritan plan.
3. Mayflower, number of people carried by.
4. Puritans, places of worship in England.

(1) Plymouth Colony

1. Pilgrims, number of.
2. At peace with the Indians, how long.
3. Mayflower, return to England, date of.
4. First governor of the Pilgrims.
5. Pilgrims, named their colony what.

(2) Massachusetts Bay Colony

1. Puritans, settled where in 1628.
2. Settlers in Long Island, agreement of to live by the word of God.

Colonization

1. The first settlement of the Dutch, how named.
2. Dutch West India Company encourages farmers to go to New Netherlands.
3. Prosperity of under English rule.
4. Dutch, inability of to drive an English fleet away.
5. Stuyvesant, how treatment of his constituents.

6. New Amsterdam, prosperity of under English rule.
7. Dutch defend themselves against Indians, how.
8. Patroons equipped by men, how.
9. New Haven colony, beginnings of.
10. Roger Williams, sort of man that he was.
11. Where Roger Williams spent the winter.
12. Wm. Bradford's experience in exploring.
13. George Calvert, who he was.
14. Dale's division of the land, benefits of.

III. DISCOVERIES

Columbus

1. Occupation of his father.
2. Attitude of the king and queen of Spain toward.
3. Columbus, how helped by Queen Isabella.
4. Columbus, how threatened by his sailors.
5. Name given to the island by Columbus.
6. Portion of his fleet left when he started for Spain.
7. First signs of land appear when.
8. Return to Spain, date of.
9. Shows his plans to whom.
10. Portuguese ships, where loaded.
11. How honored by Barcelona.
12. His idea of the location of Japan.
13. His estimate of the size of the earth.
14. San Salvador, meaning of.
15. Goes directly to the Canary Islands.
16. Makes a fourth voyage.
17. Tries to obtain help in Portugal.
18. Attitude of the Indians toward Columbus's ships.
19. Columbus put in chains and sent back to Spain.
20. Reception of by the King and Queen of Portugal.
21. Earth, considered to be a sphere by only a few.
22. Two nations which lead in attempting to find a shorter route to India.
23. The northern route of the caravans, how closed.
24. Spaniards landed where Vera Cruz now stands.
25. King and Queen of Spain, efforts of to conquer Moors.
26. Spain, reason for desiring to find another route to India.
27. Balboa calls the Pacific Ocean the South Sea.
28. Isthmus of Panama discovered by Balboa.
29. Ponce de Leon names Florida.
30. Ponce de Leon died when.
31. De Soto found what in America.
32. De Soto states visited by.
33. De Soto march after reaching the Mississippi River.
34. De Soto men, why hated by the Indians.
35. Jacques Cartier's expedition, success of.
36. John Cabot, nationality of.
37. John Cabot in the service of England.
38. Americus Vespucius voyages made by
39. Americus Vespucius made a trip where.
40. Americus Vespucius a member of the Spanish Expedition which followed
41. Claims of England to North America, how based.
42. Ferdinando Cortez conquers Mexico, date of.
43. Diaz, destination of his journey.
44. Drake's fleet sailed, when.
45. Drake, the second man to sail around the world.
46. Marco Polo's trade with the east.
47. Magellan discovers the Straits of Magellan.
48. Magellan's voyage, extent of.

49. Magellan's ships, number of.
50. Magellan, how killed.
51. Magellan strikes boldly west from South America.
52. Vasco da Gama rounds the Cape of Good Hope.
53. Vasco da Gama wins race for India, when.
54. La Salle came to the New World when.
55. La Salle, death of.
56. La Salle, action when he reached the Gulf of Mexico.
57. La Salle, murder of.
58. Henry Hudson's ship, name of.
59. Hudson's trip up the Hudson River, date of.
60. Marquette decides to hunt for a great river.
61. Joliet accompanies Marquette.
62. French, number of early immigrants.
63. Crusades, effect of in stimulating travel.
64. Crusaders bring back a liking for the luxury of the East.
65. Eastern trade, how endangered.
66. Motives which brought people to the New World.

Indians

1. Weapons of before the advent of the white men.
2. Indians, harsh treatment of unwise.
3. Clothing, description of.
4. Indian manner of life before coming of the white men.
5. Built their adobe houses in the southwest.
6. Indians, life and work of.

French and Indian War

1. The number of English and French in America.
2. Braddock's army saved by whom.
3. General Braddock, who he was.
4. English claim to Ohio, how established.
5. Wolfe, death of.
6. Wolfe's attack on Quebec, date of.
7. Ft. Pitt named for whom.
8. Lands given up by French in the treaty of peace.
9. The Battle of Great Meadows, date of.
10. Washington sent home with a message.
11. The battle which resulted (Braddock's defeat).
12. George Washington, who he was.
13. French trading posts, location of.
14. Name given by to the fort (Duquesne).
15. French strongholds in the North were captured by the English.
16. Schenectady, condition of when attacked.
17. Fort planned by the Ohio Company, location of.
18. Why this plan was unsuccessful.
19. Acadians, location of.

Slavery

1. Dispute between North and South over slavery.
2. John C. Calhoun, position of as a leader.
3. Slavery, attitude of England toward.
4. Slavery in Missouri, South's desire concerning.
5. The Missouri Compromise, nature of.
6. Calhoun, ambitions of during the last twenty years of his life.
7. Threats of South Carolina concerning enforcement of the law.
8. Andrew Jackson, idea of concerning protective tariff.
9. Daniel Webster, his most famous speech.
10. Senator Hayne, views of concerning secession.
11. Henry Clay, remarks of to those who wished him to rest.
12. Compromise of 1850, effect of in territory acquired from Mexico.
13. England's encouragement of slavery in the colonies, reasons for.

APPENDIX C

THE TEXTBOOKS USED IN THE STUDY

GENERAL SCIENCE AND PHYSICS

A. Elementary and High School

1. Black and Davis: *Practical Physics.*
2. Black: *Practical Physics, Laboratory Experiments.*
3. Black: *Practical Physics, Laboratory Exercises in Practical Physics.*
4. Caldwell and Eikenberry: *General Science.*
5. Caldwell, Eikenberry and Glenn: *Laboratory Exercises in General Science.*
6. Clark: *An Introduction to Science.*
7. Clark: *Laboratory Manual in General Science.*
8. Hessler: *The First Year of Science.*
9. Hessler: *Laboratory Exercises in General Science.*
10. Millikan and Gale: *Practical Physics.*
11. Millikan, Gale and Bishop: *Laboratory Physics.*
12. Millikan and Gale: *First Course in Physics.*
13. Pease: *Laboratory Exercises in General Science.*

B. High School and College

1. Black and Davis: *Practical Physics.*
2. Black: *Laboratory Experiments in Practical Physics.*
3. Black: *Laboratory Exercises in Practical Physics.*
4. Johnson: *Laboratory Physics.*
5. Kimball: *College Physics.*
6. Laboratory Exercises used at the University of Arkansas.
7. Laboratory Exercises used at the University of Oklahoma.
8. Laboratory Exercises used at the University of South Carolina.
9. Laboratory Exercises used at the University of Virginia.
10. Laboratory Exercises used at the University of West Virginia.
11. Miller: *Laboratory Physics.*
12. Millikan and Gale: *Practical Physics.*
13. Millikan, Gale and Bishop:. *Laboratory Physics.*
14. Millikan and Gale: *First Course in Physics.*
15. Minor: *Physical Measurements.*
16. Stewart: *Physics, A Textbook for Colleges.*

ENGLISH COMPOSITION

A. Elementary and High School

Brooks: *English Composition,* Book I.
Brooks: *English Composition,* Book I enlarged.
Clippinger: *Written and Spoken English.*
Hyde: *Two Book Course in English.*
Kimball: *Elementary English,* Books I and II.
Lewis and Hosic: *Practical English for High Schools.*
McFadden and Ferguson: *Language Series,* Book III.
Scott and Southworth: *Lessons in English,* Books I and II.

B. High School and College

Brooks: *English Composition,* Book I enlarged.
Clippinger: *Written and Spoken English.*
French: *Writing.*
Lewis and Hosic: *Practical English for High Schools.*
Raymond: *Essentials of English Composition.*
Thomas, Manchester and Scott: *Composition for College Students.*

UNITED STATES HISTORY

A. Elementary School and High School

Fite: *History of the United States.*
Gordy: *Stories of Early American History.*
Gordy: *History of the United States.*
Gordy: *Stories of Later American History.*
Lefferts: *Our Own United States.*
Mace: *School History of the United States.*
Muzzey: *History of the United States.*
Stephenson: *An American History.*
Thompson: *A History of the United States.*
Woodburn and Moran: *Elementary American History and Government.*

B. High School and College

Fite: *History of the United States.*
Muzzey: *The United States of America,* Vols. I and II.
Shippee: *Recent American History.*

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